

## 外商投资产业指导目录 Catalogue Guiding Foreign Investment in Industry (2017)

National Development and Reform Commission and Ministry of Commerce July 13, 2017

(Note: This document, which serves as a translation of the <u>2017 Catalogue Guiding Foreign Investment in Industry</u> and a comparison to previous versions, is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.)

## **US-China Business Council Notes and Abbreviations**

Any investments not listed in the three categories below (encouraged, restricted, and prohibited) fall into the fourth category of "permitted invested industries" as outlined in the Regulation on Guiding Foreign Investment Direction (指导外商投资方向规定) (State Council Order 346).

CJV: Cooperative joint venture EJV: Equity joint venture R&D: Research and development

The catalogue uses two separate phrases to indicate restrictions on foreign ownership:

- "Chinese side must hold a controlling interest" indicates that the combined stake of all Chinese investor(s) is more than 50% of the enterprise (and greater than the combined stake of all foreign investors).
- "Chinese side must hold the largest relative controlling interest" indicates that the combined stake of all Chinese investor(s) is more than 50% of the enterprise and that at least one Chinese stakeholder holds a large stake than any single foreign shareholder.

Note: This translation adheres to the numbering and structure of the original document, including sections with duplicate numbers (such as Chapter 11 of the Prohibited Section).

2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
	鼓励外商投资产业目	录 ENCOURAGED	
一, 农、林、牧、渔业 I. Agricultur	e, Forestry, Animal Husbandry, Fishery	, and Related Industries	
ENCOURAGED  1. Cultivation, development, and production of woody edible oils, spices, and industrial raw materials  1.木本食用油料、调料和工业原料的种植及开发、生产	ENCOURAGED  1. Cultivation, development, and production of woody edible oils, spices, and industrial raw materials  1. 木本食用油料、调料和工业原料的种植及开发、生产	ENCOURAGED  1. Cultivation, development, and production of woody edible oils, spices, and industrial raw materials  1. 木本食用油料、调料和工业原料的种植及开发、生产	ENCOURAGED  1. Cultivation, development, and production of woody edible oils, spices, and industrial raw materials  1. 木本食用油料、调料和工业原料的种植及开发、生产
ENCOURAGED  2. Development of cultivation technology for and production of green, organic vegetables (including edible mushrooms and melons), dried and fresh fruits, and tea  2.绿色、有机蔬菜(含食用菌、西甜瓜)、干鲜果品、茶叶栽培技术开发及产品生产	ENCOURAGED  2. Development of cultivation technology for and production of green, organic vegetables (including edible mushrooms and melons), dried and fresh fruits, and tea  2.绿色、有机蔬菜(含食用菌、西甜瓜)、干鲜果品、茶叶栽培技术开发及产品生产	ENCOURAGED  2. Development of cultivation technology for and production of green, organic vegetables (including edible mushrooms and melons), dried and fresh fruits, and tea  2.绿色、有机蔬菜(含食用菌、西甜瓜)、干鲜果品、茶叶栽培技术开发及产品生产	ENCOURAGED  2. Development of cultivation technology for and production of green, organic vegetables (including edible mushrooms and melons), dried and fresh fruits, and tea  2.绿色、有机蔬菜(含食用菌、西甜瓜)、干鲜果品、茶叶栽培技术开发及产品生产
ENCOURAGED 3. Development of new cultivation technology for and production of crops such as sugar-yielding crops, fruit trees, and foraging grass 3. 糖料、果树、牧草等农作物栽培新技术开发及产品生产	ENCOURAGED 3. Development of new cultivation technology for and production of crops such as sugar-yielding crops, fruit trees, and foraging grass 3. 糖料、果树、牧草等农作物栽培新技术开发及产品生产	ENCOURAGED 3. Development of new cultivation technology for and production of crops such as sugar-yielding crops, fruit trees, and foraging grass 3. 糖料、果树、牧草等农作物栽培新技术开发及产品生产	ENCOURAGED 3. Development of new cultivation technology for and production of crops such as sugar-yielding crops, fruit trees, and foraging grass 3. 糖料、果树、牧草等农作物栽培新技术开发及产品生产

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
ENCOURAGED  4. Production of flowers and plants; construction and management of nursery gardens  4.花卉生产与苗圃基地的建设、经营	ENCOURAGED 4. Production of flowers and plants; construction and management of nursery gardens 4. 花卉生产与苗圃基地的建设、经营	ENCOURAGED  4. Production of flowers and plants; construction and management of nursery gardens  4. 花卉生产与苗圃基地的建设、经营	ENCOURAGED 4. Production of flowers and plants; construction and management of nursery gardens 4. 花卉生产与苗圃基地的建设、经营
ENCOURAGED 5. Planting of rubber trees, oil palm, sisal hemp, and coffee 5.橡胶、油棕、剑麻、咖啡种植	ENCOURAGED 5. Planting of rubber trees, oil palm, sisal hemp, and coffee 5. 橡胶、油棕、剑麻、咖啡种植	ENCOURAGED 5. Planting of rubber trees, oil palm, sisal hemp, and coffee 5. 橡胶、油棕、剑麻、咖啡种植	ENCOURAGED 5. Planting of rubber trees, oil palm, sisal hemp, and coffee 5. 橡胶、油棕、剑麻、咖啡种植
ENCOURAGED 6. Cultivation and breeding of Chinese medicinal crops (limited to CJVs and EJVs) 6.中药材种植、养殖(限于合资、 合作)	ENCOURAGED 6. Cultivation and breeding of Chinese medicinal crops 6. 中药材种植、养殖 Revised from 2011 Catalogue: No longer limited to CJVs and EJVs	ENCOURAGED 6. Cultivation and breeding of Chinese medicinal crops 6. 中药材种植、养殖	ENCOURAGED 6. Cultivation and breeding of Chinese medicinal crops 6. 中药材种植、养殖
ENCOURAGED 7. Recycling and multipurpose utilization of straw; development and production of organic fertilizer resources 7.农作物秸秆还田及综合利用、有 机肥料资源的开发生产	ENCOURAGED 7. Recycling and multipurpose utilization of straw; development and production of organic fertilizer resources 7. 农作物秸秆还田及综合利用、有 机肥料资源的开发生产	ENCOURAGED 7. Recycling and multipurpose utilization of straw; development and production of organic fertilizer resources 7. 秸秆还田及综合利用、有机肥料 资源的开发生产 Wording slightly revised from 2015 Catalogue but without any apparent change to the meaning	7. Recycling and multipurpose utilization of crop/straw resources; development and production of organic fertilizer resources 7. 农作物秸秆资源综合利用、有机肥料资源的开发生产 Wording revised from 2016 draft Catalogue to reflect no change from 2015 Catalogue

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
ENCOURAGED 8. Planting and cultivation of forest trees (bamboo) and fine strains of forest trees, cultivation of new varieties of trees such as polyploid trees 8.林木(竹)营造及良种培育、多	Deleted		
ENCOURAGED  9. Breeding of aquatic fingerlings (excluding special, precious, or good strains from China)  9.水产苗种繁育(不含我国特有的珍贵优良品种)	ENCOURAGED 8. Breeding of aquatic fingerlings (excluding special, precious, or good strains from China) 8. 水产苗种繁育(不含我国特有的珍贵优良品种)	ENCOURAGED 8. Breeding of aquatic fingerlings (excluding special, precious, or good strains from China) 8. 水产苗种繁育(不含我国特有的珍贵优良品种)	ENCOURAGED 8. Breeding of aquatic fingerlings (excluding special, precious, or good strains from China) 8. 水产苗种繁育(不含我国特有的珍贵优良品种)
ENCOURAGED 10. Construction and management of ecological environmental protection projects, such as planting trees and grass to prevent and rectify desertification and soil erosion 10.防治荒漠化及水土流失的植树种草等生态环境保护工程建设、经营	ENCOURAGED  9. Construction and management of ecological environmental protection projects, such as planting trees and grass to prevent and rectify desertification and soil erosion  9.防治荒漠化及水土流失的植树种草等生态环境保护工程建设、经营	ENCOURAGED  9. Construction and management of ecological environmental protection projects, such as planting trees and grass to prevent and rectify desertification and soil erosion  9.防治荒漠化及水土流失的植树种草等生态环境保护工程建设、经营	ENCOURAGED  9. Construction and management of ecological environmental protection projects, such as planting trees and grass to prevent and rectify desertification and soil erosion  9.防治荒漠化及水土流失的植树种草等生态环境保护工程建设、经营

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
ENCOURAGED  11. Breeding of aquatic products, deep-water and net-cage culture products, and industrialized aquatic products; cultivation and breeding of ecological ocean species  11.水产品养殖、深水网箱养殖、工厂化水产养殖、生态型海洋增养殖		ENCOURAGED 10. Breeding of aquatic products, deep-water and net-cage culture products, and industrialized aquatic products; cultivation and breeding of ecological ocean species 10.水产品养殖、深水网箱养殖、工厂化水产养殖、生态型海洋增养殖	ENCOURAGED 10. Breeding of aquatic products, deep-water and net-cage culture products, and industrialized aquatic products; cultivation and breeding of ecological ocean species 10.水产品养殖、深水网箱养殖、工厂化水产养殖、生态型海洋增养殖
ENCOURAGED  1. Exploration and development of coal bed methane; use of mining gas (limited to CJVs and EJVs)  1. 煤层气勘探、开发和矿井瓦斯利用(限于合资、合作)  2. Exploration and development of oil and natural gas (limited to CJVs and EJVs)  2. 石油、天然气的风险勘探、开发(限于合资、合作)  6. Exploration and development of oil shale, oil sand, heavy oil, ultra-heavy oil, and other non-conventional oil resources (limited to EJVs and CJVs)  6. 油页岩、油砂、重油、超重油等	砂、页岩气、煤层气等非常规油气)的勘探、开发和矿井瓦斯利用(限于合资、合作)	ENCOURAGED  11. 石油、天然气的勘探、开发和矿井瓦斯利用  11. Oil, natural gas exploration, development and mine gas utilization  Revised from 2015 Catalogue: No longer limited to EJVs and CJVs(限于合资、合作), but also listed as limited to EJVs and CJVs at 2 in the Restricted section  RESTRICTED  2. Exploration and development of oil and natural gas (including coalbed methane, oil shale, oil sands and	ENCOURAGED  11. 石油、天然气的勘探、开发和 矿井瓦斯利用  11. Oil, natural gas exploration, development and mine gas utilization  Revised from 2015 Catalogue: No longer limited to EJVs and CJVs (限 于合资、合作), but also listed as limited to EJVs and CJVs at 2 in the Restricted section  RESTRICTED  2. Exploration and development of oil and natural gas (including coalbed methane, oil shale, oil sands and

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非常规石油资源勘探、开发(限于 合资、合作)		岩、油砂、页岩气等除外)的勘探、 开发(限于合资、合作)	岩、油砂、页岩气等除外的勘探、 开发(限于合资、合作)
ENCOURAGED 3. Development of low-permeation oil and gas fields (deposits) (limited to CJVs and EJVs) 3. 低渗透油气藏(田)的开发(限于合资、合作)	Deleted		
ENCOURAGED 4. Development and application of new and other relevant technology to increase the rate of crude oil extraction (limited to CJVs and EJVs) 4. 提高原油采收率及相关新技术的开发应用(限于合资、合作)	new and relevant technology to increase the rate of crude oil	ENCOURAGED  12. Development and application of new and relevant technology to increase the rate of crude oil extraction (in the form of engineering services)  12.提高原油采收率(以工程服务形式)及相关新技术的开发应用	ENCOURAGED  12. Development and application of new and relevant technology to increase the rate of crude oil extraction (in the form of engineering services)  12.提高原油采收率(以工程服务形式)及相关新技术的开发应用
ENCOURAGED 5. Development and application of new technology in oil exploration and development, such as exploring, drilling, well logging, measuring while logging, and down-hole operation (limited to EJVs and CJVs) 5.物探、钻井、测井、录井、井下作业等石油勘探开发新技术的开发与应用(限于合资、合作)	development, such as exploring,	ENCOURAGED 13. Development and application of new technology in oil exploration and development, such as exploring, drilling, well logging, measuring while logging, and down-hole operation 13.物探、钻井、测井、录井、井下作业等石油勘探开发新技术的开发与应用	ENCOURAGED  13. Development and application of new technology in oil exploration and development, such as exploring, drilling, well logging, measuring while logging, and down-hole operation  13.物探、钻井、测井、录井、井下作业等石油勘探开发新技术的开发与应用

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
ENCOURAGED 7. Exploration, mining, and extraction of iron and manganese ore 7.铁矿、锰矿勘探、开采及选矿	Deleted		
ENCOURAGED 8. Development and application of new technologies to increase the use of mining debris; comprehensive application of mine reclamation technology 8.提高矿山尾矿利用率的新技术开发和应用及矿山生态恢复技术的综合应用	- · · · · · · · · · · · · · · · · · · ·	ENCOURAGED  14. Development and application of new technologies to increase the use of mining debris; comprehensive application of mine reclamation technology 14.提高矿山尾矿利用率的新技术开发和应用及矿山生态恢复技术的综合应用  ENCOURAGED  15. Mining, exploration, and processing of China's rare minerals (including sylvite, chromite, etc.) 15. 我国紧缺矿种(如钾盐、铬铁矿	ENCOURAGED  14. Development and application of new technologies to increase the use of mining debris; comprehensive application of mine reclamation technology 14.提高矿山尾矿利用率的新技术开发和应用及矿山生态恢复技术的综合应用  ENCOURAGED  15. Mining, exploration, and processing of China's rare minerals (including sylvite, chromite, etc.) 15. 我国紧缺矿种(如钾盐、铬铁矿
	等)的勘探、开采和选矿 Added	等)的勘探、开采和选矿	等)的勘探、开采和选矿
ENCOURAGED  9. Exploration and development of unconventional natural gas resources such as shale gas and seabed gas hydrate (limited to CJVs and EJVs)  9.页岩气、海底天然气水合物等非常规天然气资源勘探、开发(限于合资、合作)	Deleted		
三,制造业 III. Manufacturing			

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(一)农副食品加工业 (1.) Agricu	ltural food processing		
	ENCOURAGED 16. Green and environmentally safe feed and additives development 16. 绿色无公害饲料及添加剂开发 Added	ENCOURAGED 16. Safe and efficient environmental feed and feed additive development 16. 安全高效环保饲料及饲料添加 剂开发 Revised from 2015 Catalogue: Added "safe and efficient".	ENCOURAGED 16. Safe and efficient environmental feed and feed additive (containing methionine) development and production 16. 安全高效环保饲料及饲料添加剂(含蛋氨酸)开发及生产 Revised from 2015 and 2016 Catalogue: Added "safe and efficient"; "(containing methionine)"; "production"
ENCOURAGED  1. Development and production of biological feed, straw, and aquatic feed  1.生物饲料、秸秆饲料、水产饲料的开发、生产	Deleted		
ENCOURAGED  2. Processing of aquatic products, purification and processing of shellfish, and development of seaweed health foods  2.水产品加工、贝类净化及加工、海藻保健食品开发	ENCOURAGED  17. Processing of aquatic products, purification and processing of shellfish, and development of seaweed health foods  17. 水产品加工、贝类净化及加工、海藻保健食品开发	ENCOURAGED  17. Processing of aquatic products, purification and processing of shellfish, and development of seaweed health foods  17. 水产品加工、贝类净化及加工、海藻保健食品开发	ENCOURAGED 17. Processing of aquatic products, purification and processing of shellfish, and development of seaweed health foods 17. 水产品加工、贝类净化及加工、海藻保健食品开发
ENCOURAGED  3. Processing of vegetables, dried and fresh fruits, poultry, and livestock	ENCOURAGED  18. Processing of vegetables, dried and fresh fruits, poultry, and livestock products	ENCOURAGED  18. Processing of vegetables, dried and fresh fruits, poultry, and livestock products	ENCOURAGED  18. Processing of vegetables, dried and fresh fruits, poultry, and livestock products

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
products 3.蔬菜、干鲜果品、禽畜产品加工	18. 蔬菜、干鲜果品、禽畜产品加工	18. 蔬菜、干鲜果品、禽畜产品加工	18. 蔬菜、干鲜果品、禽畜产品加工
(二)食品制造业 (2.) Food Manuj	facturing		
ENCOURAGED  1. Development and production of food for babies and seniors and health food  1.婴儿、老年食品及保健食品的开发、生产	ENCOURAGED 19. Development and production of food for babies and seniors and health food 19. 婴儿、老年食品及保健食品的开发、生产	ENCOURAGED 19.Baby food and health food development, production 19. 婴儿食品及保健食品的开发、 生产 Revised from 2015 Catalogue: Removed "food for seniors"	ENCOURAGED 19. Development and production of baby formula food, foods used for special medical prescription, and health food 19. 婴幼儿配方食品、特殊医学用途配方食品及保健食品的开发、生产 Revised from 2015 Catalogue and 2016 draft: Removed "food for seniors"; replaced "baby food" with "baby formula food"; added "foods for special medical purpose"
ENCOURAGED  2. Development and production of forest foods  2.森林食品的开发、生产	ENCOURAGED 20. Development and production of forest foods 20. 森林食品的开发、生产	ENCOURAGED 20. Development and production of forest foods 20. 森林食品的开发、生产	ENCOURAGED 20. Processing of forest agricultural products 20. 森林农产品加工 Revised from 2015 and 2016 Catalogue: Replaced "forest food" with "forest agriculture products"; replaced "development and production" with "processing"
ENCOURAGED 3. Production of natural food additives and ingredients 3.天然食品添加剂、食品配料生产	ENCOURAGED 21. Development and production of new technology in natural food additives and natural flavors	ENCOURAGED 21. Development and production of new technology in natural food additives and natural flavors	ENCOURAGED 21. Development and production of new technology in natural food additives and natural flavors

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	21. 天然食品添加剂、天然香料新技术开发与生产 Revised from 2011 Catalogue: Added "development"; Replaced "natural food additives and ingredients" with "new technology in natural food additives and natural flavors"	21. 天然食品添加剂、天然香料新 技术开发与生产	21. 天然食品添加剂、天然香料新技术开发与生产
(三)酒、饮料和精制茶制造业(3.	) Alcohol, beverage, and refined tea mo	anufacturing	
ENCOURAGED  1. Development and production of fruit and vegetable, protein, tea, coffee, and plant beverages  1.果蔬饮料、蛋白饮料、茶饮料、咖啡饮料、植物饮料的开发、生产	ENCOURAGED 22. Development and production of fruit and vegetable, protein, tea, coffee, and plant beverages 22.果蔬饮料、蛋白饮料、茶饮料、咖啡饮料、植物饮料的开发、生产	ENCOURAGED  22. Development and production of fruit and vegetable, protein, tea, coffee, and plant beverages  22.果蔬饮料、蛋白饮料、茶饮料、咖啡饮料、植物饮料的开发、生产	ENCOURAGED 22. Development and production of fruit and vegetable, protein, tea, coffee, and plant beverages 22.果蔬饮料、蛋白饮料、茶饮料、咖啡饮料、植物饮料的开发、生产
(四)烟草制品业(4.) Tobacco processing			
ENCOURAGED  1. Cellulose diacetate fiber and strip processing (limited to CJVs and EJVs)  1.二醋酸纤维素及丝束加工(限于合资、合作)	Deleted		
(五)纺织业 (5.) Textiles	(四)纺织业 (4.) Textiles		
ENCOURAGED  1. Production of lightweight, highstrength, and high/low temperature, chemical-, and light-resistant textiles using non-woven, woven, knitted, and composite technologies	ENCOURAGED 23. Production of lightweight, highstrength, and high/low temperature, chemical-, and light-resistant textiles using non-woven, woven, knitted, and composite technologies	ENCOURAGED 23. Production of lightweight, highstrength, and high/low temperature, chemical-, and light-resistant textiles using non-woven, woven, knitted, and composite technologies	ENCOURAGED 23. Production of lightweight, highstrength, and high/low temperature, chemical-, and light-resistant textiles using non-woven, woven, knitted, and composite technologies

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1.采用非织造、机织、针织及其复合工艺技术的轻质、高强、耐高/低温、耐化学物质、耐光等多功能化的产业用纺织品生产	合工艺技术的轻质、高强、耐高/低 温、耐化学物质、耐光等多功能化		23.采用非织造、机织、针织及其复合工艺技术的轻质、高强、耐高/低温、耐化学物质、耐光等多功能化的产业用纺织品生产
ENCOURAGED  2. Weaving, dyeing, and final processing of high-quality fabric using advanced technology and equipment to conserve energy and reduce emissions  2.采用先进节能减排技术和装备的高档织物面料的织染及后整理加工		to conserve energy and reduce emissions	ENCOURAGED 24. Printing, dyeing, and final processing of high-quality fabric using advanced technology and equipment to conserve energy and reduce emissions 24.采用先进节能减排技术和装备的高档织物印染及后整理加工
ENCOURAGED  3. Processing of special natural fibers that comply with the requirements of ecology, comprehensive resources use, and environmental protection (including cashmere and other specialty animal fibers, hemp, natural silk, and colored cotton fibers)  3.符合生态、资源综合利用与环保要求的特种天然纤维(包括山羊绒等特种动物纤维、麻纤维、蚕丝、彩色棉花等)产品加工	fibers that comply with the requirements of ecology, comprehensive resources use, and environmental protection (including cashmere and other specialty animal fibers, bamboo fiber, hemp, natural silk, and colored cotton fibers)	要求的特种天然纤维(包括山羊绒等特种动物纤维、竹纤维、麻纤	ENCOURAGED 25. Processing of special natural fibers that comply with the requirements of ecology, comprehensive resources use, and environmental protection (including cashmere and other specialty animal fibers, bamboo fiber, hemp, natural silk, and colored cotton fibers) 25.符合生态、资源综合利用与环保要求的特种天然纤维(包括山羊绒等特种动物纤维、竹纤维、麻纤维、蚕丝、彩色棉花等)产品加工

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue	
	(五)纺织服装、服饰业 (5.) Textiles and clothing, apparel industry			
ENCOURAGED 4. Production of apparel that uses computer-integrated manufacturing systems 4. 采用计算机集成制造系统的服装生产	ENCOURAGED 26. Production of apparel that uses computer-integrated manufacturing systems 26. 采用计算机集成制造系统的服装生产	ENCOURAGED 26. Production of apparel that uses computer-integrated manufacturing systems 26. 采用计算机集成制造系统的服装生产	ENCOURAGED 26. Production of apparel that uses computer-integrated manufacturing systems 26. 采用计算机集成制造系统的服装生产	
ENCOURAGED 5. Production of apparel that ensures clothing functionality, environmental friendliness, and production of special clothing 5.功能性、绿色环保及特种服装生产	ENCOURAGED 27. Production of apparel that ensures clothing functionality, and production of special clothing 27. 功能性特种服装生产 Revised from 2011 Catalogue: Removed "environmental friendliness"	ENCOURAGED  27. Production of apparel that ensures clothing functionality, and production of special clothing  27. 功能性特种服装生产	ENCOURAGED 27. Production of apparel that ensures clothing functionality, and production of special clothing 27. 功能性特种服装生产	
ENCOURAGED 6. Production of high-quality carpets, drawn work, and embroidery 6.高档地毯、刺绣、抽纱产品生产	see ENCOURAGED at 32			
(六)皮革、毛皮、羽毛及其制品和	扣制鞋业 (6.) Leather, fur, and feathe	r products and footwear		
ENCOURAGED  1. Processing of leather- and furcleaning technology  1.皮革和毛皮清洁化技术加工	ENCOURAGED 28. Processing of leather- and fur- cleaning technology 28. 皮革和毛皮清洁化技术加工	ENCOURAGED 28. Processing of leather- and fur- cleaning technology 28. 皮革和毛皮清洁化技术加工	ENCOURAGED 28. Processing of leather- and fur- cleaning technology 28. 皮革和毛皮清洁化技术加工	
ENCOURAGED  2. Processing of new technology for leather finishing  2.皮革后整饰新技术加工	ENCOURAGED 29. Processing of new technology for leather finishing 29. 皮革后整饰新技术加工	ENCOURAGED 29. Processing of new technology for leather finishing 29. 皮革后整饰新技术加工	ENCOURAGED 29. Processing of new technology for leather finishing 29. 皮革后整饰新技术加工	

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
ENCOURAGED 3. Processing of high-quality leather 3.高档皮革加工	Deleted		
ENCOURAGED 4. Comprehensive utilization of leather waste 4. 皮革废弃物综合利用	leather waste 30. 皮革废弃物综合利用	ENCOURAGED 30. Comprehensive utilization of leather waste 30. 皮革废弃物综合利用	ENCOURAGED 30. Comprehensive utilization of leather waste 30. 皮革废弃物综合利用
(七)木材加工和木、竹、藤、棕、	草制品业 (7.) Timber processing, bo	ımboo, rattan, palm, and grass product	s manufacturing
the comprehensive utilization of logging, cutting, and processing remains as well as "sub-quality, small, and firewood" lumber and bamboo 1.林业三剩物,"次、小、薪"材和竹材的综合利用新技术、新产品开发与生产	ENCOURAGED 31. Development of new technology and manufacture of new products for the comprehensive utilization of logging, cutting, and processing remains as well as "sub-quality, small, and firewood" lumber and bamboo 31. 林业三剩物,"次、小、薪"材和竹材的综合利用新技术、新产品开发与生产	and firewood" lumber and bamboo	ENCOURAGED 31. Development of new technology and manufacture of new products for the comprehensive utilization of logging, cutting, and processing remains as well as "sub-quality, small, and firewood" lumber and bamboo 31. 林业三剩物,"次、小、薪"材和竹材的综合利用新技术、新产品开发与生产
Papermaking and paper product industry			
ENCOURAGED  1. Production of chemical wood pulp derived from overseas lumber with single assembly line capacity of 300,000 tons or more annually and chemical mechanical wood pulp with single assembly line capacity of 100,000 tons or more annually, as well as high-quality paper and	Deleted		

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
cardboard produced simultaneously (limited to CJVs and EJVs) 1.主要利用境外木材资源的单条生			
产线年产 30 万吨及以上规模化学 木浆和单条生产线年产 10 万吨及			
以上规模化学机械木浆以及同步建			
设的高档纸及纸板生产(限于合资、合作)			
	(八)文教、工美、体育和娱乐用的 entertainment manufacturing	<b>記制造业 (8.) Cultural and educationa</b>	l product, handicraft, sports, and
See Encouraged (五)纺织业 Textiles at 6.	carpets, drawn work, and embroidery	ENCOURAGED 32. Production of high-quality carpets, drawn work, and embroidery 32. 高档地毯、刺绣、抽纱产品生 产	ENCOURAGED 32. Production of high-quality carpets, drawn work, and embroidery 32. 高档地毯、刺绣、抽纱产品生 产
(九)石油加工、炼焦和核燃料加工	T <u>业</u> (9.) Petroleum processing, coking,	, and nuclear fuel processing industry	
ENCOURAGED 1. Deep-processing of needle coke and coal tar 1.针状焦、煤焦油深加工	Deleted		
	processing, coal and asphalt for high- end use (does not include modified asphalt)	ENCOURAGED 33. Phenol oil processing, washing oil processing, coal and asphalt for highend use (does not include modified asphalt) 33.酚油加工、洗油加工、煤沥青高端化利用(不含改质沥青)	ENCOURAGED 33. Phenol oil processing, washing oil processing, coal and asphalt for highend use (does not include modified asphalt) 33.酚油加工、洗油加工、煤沥青高端化利用(不含改质沥青)

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
	端化利用(不含改质沥青) Added		
(十)化学原料和化学制品制造业	(10.) Chemical raw materials and chemical	micals manufacturing	
ENCOURAGED  1. Development and production of sodium-process calcium hypochlorite (CAPO), polyvinyl chloride (PVC), and new organosilicon downstream products  1.钠法漂粉精、聚氯乙烯和有机硅新型下游产品开发与生产	ENCOURAGED 34. Development and production of polyvinyl chloride (PVC) and new organosilicon downstream products 34. 聚氯乙烯和有机硅新型下游产 品开发与生产 Revised from 2011 Catalogue: Added "sodium-process calcium hypochlorite (CAPO)"	ENCOURAGED 34. Development and production of polyvinyl chloride (PVC) and new organosilicon downstream products 34. 聚氯乙烯和有机硅新型下游产品开发与生产	ENCOURAGED 34. Development and production of polyvinyl chloride (PVC) and new organosilicon downstream products 34. 聚氯乙烯和有机硅新型下游产品开发与生产
ENCOURAGED  2. Material that forms a complete set of composite material: production of propylene oxide manufactured by hydroperoxidation using hydrogen peroxide; glycerol epichlorohydrin; dimethyl naphthalene (NDC); 1,4-cyclohexane dimethanol (CHDM)  2.合成材料的配套原料:过氧化氢氧化丙烯法环氧丙烷、甘油法环氧氯丙烷、萘二甲酸二甲酯  (NDC)、1,4-环乙烷二甲醇酯 (CHDM)生产	ENCOURAGED 35. Material that forms a complete set of composite material: production of propylene oxide manufactured by hydroperoxidation using hydrogen peroxide; dimethyl naphthalene (NDC); 1,4-cyclohexane dimethanol (CHDM) and 50,000 tons/year or more of butadiene method hexanedinitrile, and hexamethylenetetramine 35.合成材料的配套原料:过氧化氢氧化丙烯法环氧丙烷、萘二甲酸二甲酯(NDC)、1,4-环己烷二甲醇(CHDM)、5万吨/年及以上丁二烯法己二腈、己二胺生产Revised from 2011 Catalogue: Added	ENCOURAGED 35. Material that forms a complete set of composite material: production of propylene oxide manufactured by hydroperoxidation using hydrogen peroxide; dimethyl naphthalene (NDC); 1,4-cyclohexane dimethanol (CHDM) and 50,000 tons/year or more of butadiene method hexanedinitrile, and hexamethylenetetramine 35.合成材料的配套原料:过氧化氢氧化丙烯法环氧丙烷、萘二甲酸二甲酯(NDC)、1,4-环己烷二甲醇(CHDM)、5万吨/年及以上丁二烯法己二腈、己二胺生产	ENCOURAGED 35. Material that forms a complete set of composite material: production of propylene oxide manufactured by hydroperoxidation using hydrogen peroxide; dimethyl naphthalene (NDC); 1,4-cyclohexane dimethanol (CHDM) and 50,000 tons/year or more of butadiene method hexanedinitrile, and hexamethylenetetramine 35.合成材料的配套原料:过氧化氢氧化丙烯法环氧丙烷、萘二甲酸二甲酯(NDC)、1,4-环己烷二甲醇(CHDM)、5万吨/年及以上丁二烯法己二腈、己二胺生产

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
	"50,000 tons/year or more of butadiene method hexanedinitrile, and hexamethylenetetramine"		
ENCOURAGED 3. Synthetic fiber material: manufacture of caprolactam, adipic acid hexamethylenediamine salt (nylon 66), and spandex resin manufactured by melt spinning, 1,3- propanediol 3.合成纤维原料:己内酰胺、尼龙 66 盐、熔纺氨纶树脂、1,3-丙二醇 生产	ENCOURAGED 36. Synthetic fiber material: manufacture of adipic acid hexamethylenediamine salt (nylon 66), and 1,3-propanediol 36. 合成纤维原料:尼龙 66 盐、 1,3-丙二醇生产 Revised from 2011 Catalogue: Removed "spandex resin manufactured by melt spinning"	ENCOURAGED 36. Synthetic fiber material: manufacture of adipic acid hexamethylenediamine salt (nylon 66), and 1,3-propanediol 36. 合成纤维原料:尼龙 66 盐、 1,3-丙二醇生产	ENCOURAGED 36. Synthetic fiber material: manufacture of adipic acid hexamethylenediamine salt (nylon 66), and 1,3-propanediol 36. 合成纤维原料:尼龙 66 盐、 1,3-丙二醇生产
ENCOURAGED 4. Synthetic rubber: solution styrene butadiene rubber (not including thermoplastic styrene-butadiene rubber), cis-rich polybutadiene rubber butyl rubber, isoprene, neoprene, den flex, acrylic rubber, chlorohydrin rubber, ethylene propylene diene monomer (EPDM), fluoro rubber, silicone rubber and other types of special rubber production 4.合成橡胶:溶液丁苯橡胶(不包括热塑性丁苯橡胶)、高顺式丁二烯橡胶、丁基橡胶、异戊橡胶、聚氨酯橡胶、丙烯酸酯橡胶、氯醇橡	ENCOURAGED 37. Synthetic rubber: neoprene, den flex, acrylic rubber, chlorohydrin rubber, fluoro rubber, silicone rubber and other types of special rubber production 37.合成橡胶:异戊橡胶、聚氨酯橡胶、丙烯酸酯橡胶、氯醇橡胶,以及氟橡胶、硅橡胶等特种橡胶生产Revised from 2011 Catalogue: Removed "solution styrene butadiene rubber (not including thermoplastic styrene-butadiene rubber butyl rubber, isoprene"	ENCOURAGED  37. Synthetic rubber: polyurethane rubber, acrylic rubber, chloroprene rubber, and fluorine rubber, silicone rubber and other special rubber production  37. 合成橡胶:聚氨酯橡胶、丙烯酸酯橡胶、氯醇橡胶,以及氟橡胶、硅橡胶等特种橡胶生产	ENCOURAGED  37. Synthetic rubber: polyurethane rubber, acrylic rubber, chloroprene rubber, and fluorine rubber, silicone rubber and other special rubber production  37. 合成橡胶:聚氨酯橡胶、丙烯酸酯橡胶、氯醇橡胶,以及氟橡胶、硅橡胶等特种橡胶生产

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胶、乙丙橡胶,以及氟橡胶、硅橡 胶等特种橡胶生产			
ENCOURAGED 5. Plastics engineering and plastic alloy manufacture: manufacture of non-phosgene polycarbonate (PC) with an annual capacity of 60,000 tons and above, polyoxymethylene (POM), polyamide (nylon 6, nylon 66, nylon 11 and nylon 12), ethylenevinyl acetate copolymer (EVA), engineering plastics nylon 11 and nylon 12, polyphenylene sulfide (PPS), polyether ether ketone (PEEK), polyimide, polysulphone, polyether sulfone, bisphenol-A polyarylate (PAR), and liquid crystal polyarylate (PAR), and liquid crystal polyarylate 5.工程塑料及塑料合金:6万吨/年及以上非光气法聚碳酸酯(PC)、聚甲醛(POM)、聚酰胺(尼龙6、尼龙 66、尼龙 11 和尼龙12)、聚乙烯醋酸乙烯酯 (EVA)、聚苯硫醚、聚醚醚酮、聚酰亚胺、聚砜、聚醚砜、聚芳酯(PAR)、液晶聚合物等产品生产	ENCOURAGED 38. Plastics engineering and plastic alloy manufacture: manufacture of non-phosgene polycarbonate (PC) with an annual capacity of 60,000 tons and above, homopolymerization polyoxymethylene (POM) polyphenylene sulfide (PPS), polyether ether ketone (PEEK), polyimide, polysulphone, polyether sulfone, bisphenol-A polyarylate (PAR), modified polyphenylene ether material, and liquid crystal polyarylate 38. 工程塑料及塑料合金:6 万吨/年及以上非光气法聚碳酸酯(PC)、均聚法聚甲醛(POM)、聚苯硫醚(PPS)、聚醚醚酮(PEEK)、聚酰亚胺、聚砜、聚醚砜、聚芳酯(PAR)、聚苯醚及其改性材料、液晶聚合物等产品生产	ENCOURAGED 38. Plastics engineering and plastic alloy manufacture: manufacture of non-phosgene polycarbonate (PC) with an annual capacity of 60,000 tons and above, homopolymerization polyoxymethylene (POM) polyphenylene sulfide (PPS), polyether ether ketone (PEEK), polyimide, polysulphone, polyether sulfone, bisphenol-A polyarylate (PAR), modified polyphenylene ether material, and liquid crystal polyarylate 38.工程塑料及塑料合金:6 万吨/年及以上非光气法聚碳酸酯(PC)、均聚法聚甲醛(POM)、聚苯硫醚(PPS)、聚醚醚酮(PEEK)、聚酰亚胺、聚砜、聚醚砜、聚芳酯(PAR)、聚苯醚及其改性材料、液晶聚合物等产品生产	ENCOURAGED 38. Plastics engineering and plastic alloy manufacture: manufacture of non-phosgene polycarbonate (PC) with an annual capacity of 60,000 tons and above, homopolymerization polyoxymethylene (POM) polyphenylene sulfide (PPS), polyether ether ketone (PEEK), polyimide, polysulphone, polyether sulfone, bisphenol-A polyarylate (PAR), modified polyphenylene ether material, and liquid crystal polyarylate 38.工程塑料及塑料合金:6 万吨/年及以上非光气法聚碳酸酯(PC)、均聚法聚甲醛(POM)、聚苯硫醚(PPS)、聚醚醚酮(PEEK)、聚酰亚胺、聚砜、聚醚砜、聚芳酯(PAR)、聚苯醚及其改性材料、液晶聚合物等产品生产
ENCOURAGED 6. Fine chemicals industry: new products and technologies of catalysts, dyestuff (pigment)	ENCOURAGED  39. Fine chemicals industry: new products and technologies of catalysts, dyestuff (pigment)	ENCOURAGED  39. Fine chemicals industry: new products and technologies of catalysts, dyestuff (pigment)	ENCOURAGED  39. Fine chemicals industry: new products and technologies of catalysts, dyestuff (pigment)

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commercialization processing, electronic chemicals and papermaking chemicals, food additives, feed additives, leather chemicals (excluding N-N dimethylformamide), oil additives, surface activators, water treatment compounds, adhesives, inorganic fibers, inorganic nanomaterials manufacturing, and deep processing of pigments and coatings  6.精细化工:催化剂新产品、新技术,染(颜)料商品化加工技术,电子化学品和造纸化学品,食品添加剂、饲料添加剂,皮革化学品(N-N 二甲基甲酰胺除外),油田助剂,表面活性剂,水处理剂,胶粘剂,无机纤维、无机纳米材料生产,颜料包膜处理深加工	commercialization processing, electronic chemicals and paper-making chemicals, leather chemicals (excluding N-N dimethylformamide), oil additives, surface activators, water treatment compounds, adhesives, inorganic fibers, inorganic nanomaterials manufacturing, and deep processing of pigments and coatings  39.精细化工:催化剂新产品、新技术,染(颜)料商品化加工技术,电子化学品和造纸化学品,皮革化学品(N-N 二甲基甲酰胺除外),油田助剂,表面活性剂,水处理剂,胶粘剂,无机纤维、无机纳米材料生产,颜料包膜处理深加工  Revised from 2011 Catalogue:  Removed "food additives, feed additives"		commercialization processing, electronic chemicals and paper-making chemicals, leather chemicals (excluding N-N dimethylformamide), oil additives, surface activators, water treatment compounds, adhesives, inorganic fibers, inorganic nanomaterials manufacturing, and deep processing of pigments and coatings  39.精细化工:催化剂新产品、新技术,染(颜)料商品化加工技术,电子化学品和造纸化学品,皮革化学品(N-N 二甲基甲酰胺除外),油田助剂,表面活性剂,水处理剂,胶粘剂,无机纤维、无机纳米材料生产,颜料包膜处理深加工
ENCOURAGED 7. Manufacture of environmentally friendly printing ink and aromatic hydrocarbon oil 7.环保型印刷油墨、环保型芳烃油生产	ENCOURAGED 40. Manufacture of environmentally friendly printing ink and aromatic hydrocarbon oil 40. 环保型印刷油墨、环保型芳烃油生产	ENCOURAGED 40. Water-based ink, electron beam curing UV curing and other low-volatile ink, environmentally friendly organic solvent production 40. 水性油墨、电子束固化紫外光 固化等低挥发性油墨、环保型有机	ENCOURAGED 40. Water-based ink, electron beam curing UV curing and other low-volatile ink, environmentally friendly organic solvent production 40. 水性油墨、电子束固化紫外光 固化等低挥发性油墨、环保型有机
		溶剂生产 Revised from 2015 Catalogue to be more specific about types of inks and	溶剂生产 Revised from 2015 Catalogue to be more specific about types of inks and

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		solvents for which investment is encouraged.	solvents for which investment is encouraged.
ENCOURAGED 8. Manufacture of natural perfume, synthetic perfume, and perfume isolates 8.天然香料、合成香料、单离香料生产	ENCOURAGED 41. Manufacture of natural perfume, synthetic perfume, and perfume isolates 41. 天然香料、合成香料、单离香 料生产	ENCOURAGED 41. Manufacture of natural perfume, synthetic perfume, and perfume isolates 41. 天然香料、合成香料、单离香 料生产	ENCOURAGED 41. Manufacture of natural perfume, synthetic perfume, and perfume isolates 41. 天然香料、合成香料、单离香料生产
ENCOURAGED  9. Manufacture of high-performance paint, water-based paint for automobiles, and water-based resins  9.高性能涂料、水性汽车涂料及配套水性树脂生产	ENCOURAGED 42. Manufacture of high- performance paint, high solids, solvent-free coatings, water-based industrial coatings, and water-based resins 42.高性能涂料,高固体份、无溶剂 涂料,水性工业涂料及配套水性树 脂生产 Revised from 2011 Catalogue: Added "high solids, solvent-free coatings"		ENCOURAGED 42. Manufacture of high- performance paint, high solids, solvent-free coatings, water-based industrial coatings, and water-based resins 42.高性能涂料,高固体份、无溶剂 涂料,水性工业涂料及配套水性树 脂生产
ENCOURAGED 10. Manufacture of chlorofluorocarbon (CFC) substitutes 10.氟氯烃替代物生产	Deleted		
ENCOURAGED 11. Production of high-performance fluorine resin, fluorine coated materials, fluorinated intermediates for medical use, and environmentally friendly refrigerants and detergents 11.高性能氟树脂、氟膜材料,医用	ENCOURAGED 43. Production of high-performance fluorine resin, fluorine coated materials, fluorinated intermediates for medical use, environmentally friendly fluoride refrigerants and detergents, and foaming agents	ENCOURAGED 43. Production of high-performance fluorine resin, fluorine coated materials, fluorinated intermediates for medical use, environmentally friendly fluoride refrigerants and detergents, and foaming agents	ENCOURAGED 43. Production of high-performance fluorine resin, fluorine coated materials, fluorinated intermediates for medical use, environmentally friendly fluoride refrigerants and detergents, and foaming agents

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含氟中间体,环境友好型制冷剂和清洁剂生产	43.高性能氟树脂、氟膜材料,医用含氟中间体,环境友好型含氟制冷剂、和清洁剂、发泡剂生产 Revised from 2011 Catalogue: Added "foaming agents"	43.高性能氟树脂、氟膜材料,医用含氟中间体,环境友好型含氟制冷剂、和清洁剂、发泡剂生产	43.高性能氟树脂、氟膜材料,医用含氟中间体,环境友好型含氟制冷剂、和清洁剂、发泡剂生产
ENCOURAGED 12. Manufacture of fluorine resources recycled from phosphorus chemical processing and aluminum smelting 12.从磷化工、铝冶炼中回收氟资源 生产	ENCOURAGED 44. Manufacture of fluorine resources recycled from phosphorus chemical processing and aluminum smelting 44. 从磷化工、铝冶炼中回收氟资 源生产	ENCOURAGED 44. Manufacture of fluorine resources recycled from phosphorus chemical processing and aluminum smelting 44. 从磷化工、铝冶炼中回收氟资 源生产	ENCOURAGED 44. Manufacture of fluorine resources recycled from phosphorus chemical processing and aluminum smelting 44. 从磷化工、铝冶炼中回收氟资 源生产
ENCOURAGED 13. Development and manufacture of new chemical technologies and products for the forestry industry 13.林业化学产品新技术、新产品开发与生产	ENCOURAGED 45. Development and manufacture of new chemical technologies and products for the forestry industry 45. 林业化学产品新技术、新产品	ENCOURAGED 45. Development and manufacture of new chemical technologies and products for the forestry industry 45. 林业化学产品新技术、新产品	ENCOURAGED 45. Development and manufacture of new chemical technologies and products for the forestry industry 45. 林业化学产品新技术、新产品
ENCOURAGED  14. Development and manufacture of organic, inorganic, and bio membranes for environmental protection  14.环保用无机、有机和生物膜开发与生产	organic, inorganic, and bio membranes for environmental protection	ENCOURAGED 46. Development and manufacture of organic, inorganic, and bio membranes for environmental protection 46. 环保用无机、有机和生物膜开发与生产	ENCOURAGED 46. Development and manufacture of organic, inorganic, and bio membranes for environmental protection 46. 环保用无机、有机和生物膜开发与生产
ENCOURAGED 15. Development and manufacture of new types of fertilizers: biological fertilizers, highly concentrated	ENCOURAGED 47. Development and manufacture of new types of fertilizers: highly concentrated potash fertilizers,	ENCOURAGED 47. Development and manufacture of new types of fertilizers: highly concentrated potash fertilizers,	ENCOURAGED 47. Development and manufacture of new types of fertilizers: highly concentrated potash fertilizers,

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potash fertilizers, compound fertilizers, slow- or controlled-release fertilizers, compound microbial inoculant, compound microbial fertilizers, mature straw and trash compost, and microbial products for special functions  15.新型肥料开发与生产:生物肥料、高浓度钾肥、复合肥料、缓释可控肥料、复合型微生物接种剂、复合微生物肥料、秸杆及垃圾腐熟剂、特殊功能微生物制剂	compound microbial inoculant, compound microbial fertilizers, mature straw and trash compost, and microbial products for special functions 47.新型肥料开发与生产:高浓度钾肥、复合型微生物接种剂、复合微生物肥料、秸杆及垃圾腐熟剂、特殊功能微生物制剂 Revised from 2011 Catalogue: Removed "biological fertilizers"; slowor controlled-release fertilizers	compound microbial inoculant, compound microbial fertilizers, mature straw and trash compost, and microbial products for special functions 47.新型肥料开发与生产:高浓度钾肥、复合型微生物接种剂、复合微生物肥料、秸杆及垃圾腐熟剂、特殊功能微生物制剂	compound microbial inoculant, compound microbial fertilizers, mature straw and trash compost, and microbial products for special functions 47.新型肥料开发与生产:高浓度钾肥、复合型微生物接种剂、复合微生物肥料、秸杆及垃圾腐熟剂、特殊功能微生物制剂
ENCOURAGED 16. Development and manufacture of new pesticides, delivery methods, special intermediates, and additives that are efficient, safe, and environmentally friendly; and development and application of related clean production processes (methylene method of acetochlor, paraquat amine cyanide method, water process chlorpyrifos, glyphosate, methyl chloride recovery process, directed synthesis and three-dimensional structure of chiral pesticides production, synthesis of ethyl chloride technology) 16.高效、安全、环境友好的农药新品种、新剂型、专用中间体、助剂	ENCOURAGED 48. Development and manufacture of new pesticides, delivery methods, special intermediates, and additives that are efficient, safe, and environmentally friendly; and development and application of related clean production processes (methylene method of acetochlor, water process chlorpyrifos, glyphosate, methyl chloride recovery process, directed synthesis and three-dimensional structure of chiral pesticides production, synthesis of ethyl chloride technology) 48.高效、安全、环境友好的农药新品种、新剂型、专用中间体、助剂的开发与生产,以及相关清洁生产	ENCOURAGED 48. Development and manufacture of new pesticides, delivery methods, special intermediates, and additives that are efficient, safe, and environmentally friendly; and development and application of related clean production processes (methylene method of acetochlor, water process chlorpyrifos, glyphosate, methyl chloride recovery process, directed synthesis and three-dimensional structure of chiral pesticides production, synthesis of ethyl chloride technology) 48.高效、安全、环境友好的农药新品种、新剂型、专用中间体、助剂的开发与生产,以及相关清洁生产	ENCOURAGED 48. Development and manufacture of new pesticides, delivery methods, special intermediates, and additives that are efficient, safe, and environmentally friendly; and development and application of related clean production processes (methylene method of acetochlor, water process chlorpyrifos, glyphosate, methyl chloride recovery process, directed synthesis and three-dimensional structure of chiral pesticides production, synthesis of ethyl chloride technology) 48.高效、安全、环境友好的农药新品种、新剂型、专用中间体、助剂的开发与生产,以及相关清洁生产

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的开发与生产,以及相关清洁生产	工艺的开发和应用(甲叉法乙草	工艺的开发和应用(甲叉法乙草	工艺的开发和应用(甲叉法乙草
工艺的开发和应用(甲叉法乙草		  胺、水相法毒死蜱工艺、草甘膦回	胺、水相法毒死蜱工艺、草甘膦回
胺、胺氰法百草枯、水相法毒死蜱	收氯甲烷工艺、定向合成法手性和	收氯甲烷工艺、定向合成法手性和	收氯甲烷工艺、定向合成法手性和
工艺、草甘膦回收氯甲烷工艺、定	立体结构农药生产、乙基氯化物合	立体结构农药生产、乙基氯化物合	立体结构农药生产、乙基氯化物合
向合成法手性和立体结构农药生	成技术)	成技术)	成技术)
产、乙基氯化物合成技术)	Revised from 2011 Catalogue: Removed "paraquat amine cyanide method"		
ENCOURAGED 17. Development and manufacture of bio pesticide and bio-control products: microbial pesticides, microbial sanitizers, agricultural antibiotics, insect pheromones, natural enemies of insects, and microbial weed-control chemicals. 17.生物农药及生物防治产品开发与生产:微生物杀虫剂、微生物杀菌剂、农用抗生素、昆虫信息素、天	bio pesticide and bio-control products: microbial pesticides, microbial sanitizers, agricultural antibiotics, insect pheromones, natural enemies of insects, and microbial weed-control chemicals.  49.生物农药及生物防治产品开发与生产:微生物杀虫剂、微生物杀菌剂、农用抗生素、昆虫信息素、天	bio pesticide and bio-control products: microbial pesticides, microbial sanitizers, agricultural antibiotics, insect pheromones, natural enemies of insects, and microbial weed-control chemicals.  49.生物农药及生物防治产品开发与生产:微生物杀虫剂、微生物杀菌剂、农用抗生素、昆虫信息素、天	ENCOURAGED  49. Development and manufacture of bio pesticide and bio-control products: microbial pesticides, microbial sanitizers, agricultural antibiotics, insect pheromones, natural enemies of insects, and microbial weed-control chemicals.  49.生物农药及生物防治产品开发与生产:微生物杀虫剂、微生物杀菌剂、农用抗生素、昆虫信息素、天
敌昆虫、微生物除草剂 ENCOURAGED 18. Multi-purpose use, disposal, and treatment of exhaust gas, waste liquid, and industrial waste products 18.废气、废液、废渣综合利用和处	敌昆虫、微生物除草剂 ENCOURAGED 50. Multi-purpose use, disposal, and treatment of exhaust gas, waste liquid, and industrial waste products 50. 废气、废液、废渣综合利用和	敌昆虫、微生物除草剂 ENCOURAGED 50. Multi-purpose use, disposal, and treatment of exhaust gas, waste liquid, and industrial waste products 50. 废气、废液、废渣综合利用和	敌昆虫、微生物除草剂 ENCOURAGED 50. Multi-purpose use, disposal, and treatment of exhaust gas, waste liquid, and industrial waste products 50. 废气、废液、废渣综合利用和
理、处置	处理、处置	处理、处置	处理、处置
ENCOURAGED  19. Manufacture of organic high- polymer materials: coating paint for	ENCOURAGED 51. Manufacture of organic high- polymer materials: coating paint for	ENCOURAGED 51. Manufacture of organic high- polymer materials: coating paint for	ENCOURAGED 51. Manufacture of organic high- polymer materials: coating paint for

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airplanes, rare-earth cerium sulfide red dye, lead-free electronic sealing and packaging materials, special series of lithography slurry for color plasma display, ultra-fine fiber, high-precision fuel filter paper, lithium-ion battery separator 19.有机高分子材料生产:飞机蒙皮涂料、稀土硫化铈红色染料、无铅化电子封装材料、彩色等离子体显示屏专用系列光刻浆料、小直径大比表面积超细纤维、高精度燃油滤纸、锂离子电池隔膜	airplanes, rare-earth cerium sulfide red dye, lead-free electronic sealing and packaging materials, special series of lithography slurry for color plasma display, ultra-fine fiber, high-precision fuel filter paper, lithium-ion battery separator, self-healing surface treatment materials, super hydrophobic nanocoating material 51.有机高分子材料生产:飞机蒙皮涂料、稀土硫化铈红色染料、无铅化电子封装材料、彩色等离子体显示屏专用系列光刻浆料、小直径大比表面积超细纤维、高精度燃油滤纸、锂离子电池隔膜、表面处理自我修复材料、超疏水纳米涂层材料 Revised from 2011 Catalogue: Added "self-healing surface treatment materials, super hydrophobic nanocoating material"	airplanes, rare-earth cerium sulfide red dye, lead-free electronic sealing and packaging materials, special series of lithography slurry for color plasma display, ultra-fine fiber, high-precision fuel filter paper, lithium-ion battery separator, self-healing surface treatment materials, super hydrophobic nanocoating material 51.有机高分子材料生产:飞机蒙皮涂料、稀土硫化铈红色染料、无铅化电子封装材料、彩色等离子体显示屏专用系列光刻浆料、小直径大比表面积超细纤维、高精度燃油滤纸、锂离子电池隔膜、表面处理自我修复材料、超疏水纳米涂层材料	airplanes, rare-earth cerium sulfide red dye, lead-free electronic sealing and packaging materials, special series of lithography slurry for color plasma display, ultra-fine fiber, high-precision fuel filter paper, lithium-ion battery separator, self-healing surface treatment materials, super hydrophobic nanocoating material 51.有机高分子材料生产:飞机蒙皮涂料、稀土硫化铈红色染料、无铅化电子封装材料、彩色等离子体显示屏专用系列光刻浆料、小直径大比表面积超细纤维、高精度燃油滤纸、锂离子电池隔膜、表面处理自我修复材料、超疏水纳米涂层材料
(十一) 医药制造业 (11.) Medicin	e/Pharmaceutical manufacturing		
ENCOURAGED  1. Manufacture of new types of compound medicine or medicine with active ingredients (including raw materials for medicine and preparation)  1.新型化合物药物或活性成份药物的生产(包括原料药和制剂)	ENCOURAGED 52. Manufacture of new types of compound medicine or medicine with active ingredients (including raw materials for medicine and preparation) 52.新型化合物药物或活性成份药物的生产(包括原料药和制剂)	ENCOURAGED 52. Manufacture of new types of compound medicine or medicine with active ingredients (including raw materials for medicine and preparation) 52.新型化合物药物或活性成份药物的生产(包括原料药和制剂)	ENCOURAGED 52. Manufacture of new types of compound medicine or medicine with active ingredients (including raw materials for medicine and preparation) 52.新型化合物药物或活性成份药物的生产(包括原料药和制剂)

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ENCOURAGED  2. Amino acids: manufacture of fermented tryptophan, histidine, and feed use of methionine  2.氨基酸类:发酵法生产色氨酸、组氨酸、饲料用蛋氨酸等生产	ENCOURAGED 53. Amino acids: manufacture of fermented tryptophan, histidine, and methionine. 53.氨基酸类:发酵法生产色氨酸、组氨酸、蛋氨酸等生产 Revised from 2011 Catalogue: Removed "feed use"	ENCOURAGED 53. Amino acids: manufacture of fermented tryptophan, histidine, and methionine. 53.氨基酸类:发酵法生产色氨酸、组氨酸、蛋氨酸等生产	ENCOURAGED 53. Amino acids: manufacture of fermented tryptophan, histidine, and methionine. 53.氨基酸类:发酵法生产色氨酸、组氨酸、蛋氨酸等生产
ENCOURAGED 3. Manufacture of new anti-cancer medicines; new heart, brain, and blood vessel medicines; and new neurology medicines 3.新型抗癌药物、新型心脑血管药及新型神经系统用药生产	ENCOURAGED 54. Development and Manufacture of new anti-cancer medicines; new heart, brain, and blood vessel medicines; and new neurology medicines 54.新型抗癌药物、新型心脑血管药及新型神经系统用药的开发及生产 Revised from 2011 Catalogue: Added "development"	new anti-cancer medicines; new heart, brain, and blood vessel medicines; and new neurology medicines	ENCOURAGED 54. Development and Manufacture of new anti-cancer medicines; new heart, brain, and blood vessel medicines; and new neurology medicines 54.新型抗癌药物、新型心脑血管药及新型神经系统用药的开发及生产
ENCOURAGED  4. Manufacture of new medicines using bio-engineering technology  4.采用生物工程技术的新型药物生产	ENCOURAGED 55. Manufacture of new medicines using bio-engineering technology	ENCOURAGED 55. Manufacture of new medicines using bio-engineering technology 55. 采用生物工程技术的新型药物 生产	ENCOURAGED 55. Manufacture of new medicines using bio-engineering technology 55. 采用生物工程技术的新型药物
ENCOURAGED 5. Manufacture of AIDS vaccines, hepatitis-C vaccines, contraceptives, and new vaccines such as those for cervical cancer, malaria, and handfoot-and-mouth disease 5.艾滋病疫苗、丙肝疫苗、避孕疫	56. Manufacture of AIDS vaccines, hepatitis-C vaccines, contraceptives, and new vaccines such as those for cervical cancer, malaria, and handfoot-and-mouth disease 56.艾滋病疫苗、丙肝疫苗、避孕疫	ENCOURAGED 56. Manufacture of AIDS vaccines, hepatitis-C vaccines, contraceptives, and new vaccines such as those for cervical cancer, malaria, and hand- foot-and-mouth disease 56.艾滋病疫苗、丙肝疫苗、避孕疫	ENCOURAGED 56. Manufacture of AIDS vaccines, hepatitis-C vaccines, contraceptives, and new vaccines such as those for cervical cancer, malaria, and hand- foot-and-mouth disease 56.艾滋病疫苗、丙肝疫苗、避孕疫

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苗及宫颈癌、疟疾、手足口病等新型疫苗生产	苗及宫颈癌、疟疾、手足口病等新型疫苗生产	苗及宫颈癌、疟疾、手足口病等新型疫苗生产	苗及宫颈癌、疟疾、手足口病等新型疫苗生产
ENCOURAGED 6. Manufacture of bio vaccines 6.生物疫苗生产	Deleted		
ENCOURAGED 7. Development and manufacture of oceanic medicines 7.海洋药物开发与生产	ENCOURAGED 57. Development and manufacture of oceanic medicines 57. 海洋药物的开发及生产	ENCOURAGED 57. Development and manufacture of oceanic medicines 57. 海洋药物的开发及生产	ENCOURAGED 57. Development and manufacture of oceanic medicines 57. 海洋药物的开发及生产
ENCOURAGED 8. Pharmaceuticals: manufacture of new-forms of pharmaceuticals and new products that use new technologies and delivery mechanisms such as slow release, controlled release, targeting, and absorbing through surfaces 8.药品制剂:采用缓释、控释、靶向、透皮吸收等新技术的新剂型、新产品生产	ENCOURAGED 58. Pharmaceuticals: manufacture of new-forms of pharmaceuticals and new products that use new technologies and delivery mechanisms such as slow release, controlled release, targeting, and absorbing through surfaces 58.药品制剂:采用缓释、控释、靶向、透皮吸收等新技术的新剂型、新产品生产	ENCOURAGED 58. Pharmaceuticals: manufacture of new-forms of pharmaceuticals and new products that use new technologies and delivery mechanisms such as slow release, controlled release, targeting, and absorbing through surfaces 58.药品制剂:采用缓释、控释、靶向、透皮吸收等新技术的新剂型、新产品生产	ENCOURAGED 58. Pharmaceuticals: manufacture of new-forms of pharmaceuticals and new products that use new technologies and delivery mechanisms such as slow release, controlled release, targeting, and absorbing through surfaces 58.药品制剂:采用缓释、控释、靶向、透皮吸收等新技术的新剂型、新产品生产
ENCOURAGED  9. Development and manufacture of new pharmaceutical adjuvants  9.新型药用辅料的开发及生产	ENCOURAGED 59. Development and manufacture of new pharmaceutical adjuvants 59. 新型药用辅料的开发及生产	ENCOURAGED 59. Development and manufacture of new pharmaceutical adjuvants 59. 新型药用辅料的开发及生产	ENCOURAGED 59. Development and manufacture of new pharmaceutical adjuvants 59. 新型药用辅料的开发及生产
ENCOURAGED  10. Manufacture of anti-bacterial material medicines for animals (including antibiotics and chemical-	ENCOURAGED 60. Manufacture of anti-bacterial material medicines for animals (including antibiotics and chemical-	ENCOURAGED 60. Manufacture of anti-bacterial material medicines for animals (including antibiotics and chemical-	ENCOURAGED 60. Manufacture of anti-bacterial material medicines for animals (including antibiotics and chemical-

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compounds) 10.动物专用抗菌原料药生产(包括 抗生素、化学合成类)	compounds) 60.动物专用抗菌原料药生产(包括 抗生素、化学合成类)	compounds) 60.动物专用抗菌原料药生产(包括 抗生素、化学合成类)	compounds) 60.动物专用抗菌原料药生产(包括 抗生素、化学合成类)
new antibiotic, anthelmintic, insecticide, and anti-coccidiosis medicines and delivery mechanisms for animal use 11.兽用抗菌药、驱虫药、杀虫药、抗球虫药新产品及新剂型生产 ENCOURAGED 12. Manufacture of new diagnostic reagents	抗球虫药新产品及新剂型生产 ENCOURAGED 62. Development and manufacture of new diagnostic reagents	new antibiotic, anthelmintic, insecticide, and anti-coccidiosis medicines and delivery mechanisms for animal use 61.兽用抗菌药、驱虫药、杀虫药、抗球虫药新产品及新剂型生产 ENCOURAGED 62. Development and manufacture of new diagnostic reagents	new antibiotic, anthelmintic, insecticide, and anti-coccidiosis medicines and delivery mechanisms for animal use 61.兽用抗菌药、驱虫药、杀虫药、抗球虫药新产品及新剂型生产 ENCOURAGED 62. Development and manufacture of new diagnostic reagents
12.新型诊断试剂的生产	62. 新型诊断试剂的开发及生产 Revised from 2011 Catalogue: Added "development"	62. 新型诊断试剂的开发及生产	62. 新型诊断试剂的开发及生产
(十二)化学纤维制造业 (12.) Che	emical fiber manufacturing		
ENCOURAGED  1. Manufacture of differentiated chemical fibers and high- and newtech fibers (except for viscose fiber) such as aramid fiber, carbon fiber, and high-strength and high-modulus polyethylene, and polyphenylene sulfide (PPS)  1.差别化化学纤维及芳纶、碳纤	chemical fibers and high- and new- tech fibers (except for viscose fiber) such as aramid fiber, carbon fiber, and high-strength and high-modulus polyethylene, and polyphenylene	ENCOURAGED 63. Manufacture of differentiated chemical fibers and high- and newtech fibers (except for viscose fiber) such as aramid fiber, carbon fiber, and high-strength and high-modulus polyethylene, and polyphenylene sulfide (PPS) 63.差别化化学纤维及芳纶、碳纤	ENCOURAGED 63. Manufacture of differentiated chemical fibers and high- and newtech fibers (except for viscose fiber) such as aramid fiber, carbon fiber, and high-strength and high-modulus polyethylene, and polyphenylene sulfide (PPS) 63.差别化化学纤维及芳纶、碳纤
维、高强高模聚乙烯、聚苯硫醚	维、高强高模聚乙烯、聚苯硫醚	维、高强高模聚乙烯、聚苯硫醚	维、高强高模聚乙烯、聚苯硫醚

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(PPS)等高新技术化纤(粘胶纤 维除外)生产	( PPS ) 等高新技术化纤 ( 粘胶纤 维除外 ) 生产	( PPS ) 等高新技术化纤 ( 粘胶纤 维除外 ) 生产	(PPS)等高新技术化纤(粘胶纤 维除外)生产
ENCOURAGED  2. Manufacture of new fiber and nonfiber polyesters: polytrimethylene terephthalate (PTT), polyethylene naphthalate (PEN), polycyclohexylenedimethylene terephthalate (PCT), glycol modified polyethylene terephthalate (PETG)  2.纤维及非纤维用新型聚酯生产: 聚对苯二甲酸丙二醇酯(PTT)、 聚葵二酸乙二醇酯(PEN)、聚对苯二甲酸环己烷二甲醇酯 (PCT)、二元醇改性聚对苯二甲	ENCOURAGED 64. Manufacture of new fiber and non-fiber polyesters: polytrimethylene terephthalate (PTT), polyethylene naphthalate (PEN), polycyclohexylenedimethylene terephthalate (PCT), glycol modified polyethylene terephthalate (PETG) 64.纤维及非纤维用新型聚酯生产: 聚对苯二甲酸丙二醇酯(PTT)、 聚葵二甲酸乙二醇酯(PEN)、聚 对苯二甲酸环己烷二甲醇酯 (PCT)、二元醇改性聚对苯二甲酸乙二醇酯(PETG)	terephthalate (PCT), glycol modified polyethylene terephthalate (PETG) 64.纤维及非纤维用新型聚酯生产:聚对苯二甲酸丙二醇酯(PTT)、聚葵二甲酸乙二醇酯(PEN)、聚对苯二甲酸环己烷二甲醇酯(PCT)、二元醇改性聚对苯二甲	ENCOURAGED 64. Manufacture of new fiber and non-fiber polyesters: polytrimethylene terephthalate (PTT), polyethylene naphthalate (PEN), polycyclohexylenedimethylene terephthalate (PCT), glycol modified polyethylene terephthalate (PETG) 64.纤维及非纤维用新型聚酯生产: 聚对苯二甲酸丙二醇酯(PTT)、 聚葵二甲酸乙二醇酯(PEN)、聚 对苯二甲酸环己烷二甲醇酯 (PCT)、二元醇改性聚对苯二甲
酸乙二醇酯(PETG) ENCOURAGED 3. Application of new renewable resources and green biomass fiber production processes, including new solvents from cellulose fibers (Lyocell), regenerated cellulose fiber such as bamboo, hemp, and other raw materials, polylactic acid (PLA), Chitin fiber, polyethylene-based fatty acid ester fibers (PHA), animal and plant protein fibers 3.利用新型可再生资源和绿色环保工艺生产生物质纤维,包括新溶剂	ENCOURAGED 65. Application of new renewable resources and green biomass fiber production processes, including new solvents from cellulose fibers (Lyocell), regenerated cellulose fiber such as bamboo, hemp, and other raw materials, polylactic acid (PLA), Chitin fiber, polyethylene-based fatty acid ester fibers (PHA), animal and plant protein fibers	酸乙二醇酯(PETG) ENCOURAGED 65. Application of new renewable resources and green biomass fiber production processes, including new solvents from cellulose fibers (Lyocell), regenerated cellulose fiber such as bamboo, hemp, and other raw materials, polylactic acid (PLA), Chitin fiber, polyethylene-based fatty acid ester fibers (PHA), animal and plant protein fibers 65.利用新型可再生资源和绿色环保工艺生产生物质纤维,包括新溶剂	酸乙二醇酯(PETG) ENCOURAGED 65. Application of new renewable resources and green biomass fiber production processes, including new solvents from cellulose fibers (Lyocell), regenerated cellulose fiber such as bamboo, hemp, and other raw materials, polylactic acid (PLA), Chitin fiber, polyethylene-based fatty acid ester fibers (PHA), animal and plant protein fibers 65.利用新型可再生资源和绿色环保工艺生产生物质纤维,包括新溶剂

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法纤维素纤维(Lyocell)、以竹、麻等为原料的再生纤维素纤维、聚乳酸纤维(PLA)、甲壳素纤维、聚聚羟基脂肪酸酯纤维(PHA)、动植物蛋白纤维等	法纤维素纤维(Lyocell)、以竹、麻等为原料的再生纤维素纤维、聚乳酸纤维(PLA)、甲壳素纤维、聚聚羟基脂肪酸酯纤维(PHA)、动植物蛋白纤维等	法纤维素纤维(Lyocell)、以竹、麻等为原料的再生纤维素纤维、聚乳酸纤维(PLA)、甲壳素纤维、聚聚羟基脂肪酸酯纤维(PHA)、动植物蛋白纤维等	法纤维素纤维(Lyocell)、以竹、麻等为原料的再生纤维素纤维、聚乳酸纤维(PLA)、甲壳素纤维、聚聚羟基脂肪酸酯纤维(PHA)、动植物蛋白纤维等
	ENCOURAGED 66. Development and production of nylon 11, nylon 144, nylon 46, long carbon chain nylon, high-temperature resistant nylon, and other kinds of new polyamides 66.尼龙 11、尼龙 1414、尼龙 46、长碳链尼龙、耐高温尼龙等新型聚酰胺开发与生产 Added	ENCOURAGED 66. Development and production of nylon 11, nylon 144, nylon 46, long carbon chain nylon, high-temperature resistant nylon, and other kinds of new polyamides 66.尼龙 11、尼龙 1414、尼龙 46、长碳链尼龙、耐高温尼龙等新型聚酰胺开发与生产	ENCOURAGED 66. Development and production of nylon 11, nylon 12, nylon 144, nylon 46, long carbon chain nylon, high-temperature resistant nylon, and other kinds of new polyamides 66.尼龙 11、尼龙 12、尼龙 1414、尼龙 46、长碳链尼龙、耐高温尼龙等新型聚酰胺开发与生产 Revised from 2015 Catalogue and 2016 draft: Added nylon 12
ENCOURAGED  4. Manufacture of polyamide with single-machine daily capacity of 150 tons or more  4.单线生产能力日产 150 吨及以上 聚酰胺生产	Deleted		
ENCOURAGED 5. Manufacture of radial tires from aramid fibers and cords 5.子午胎用芳纶纤维及帘线生产 (十三)塑料制品业 (13.) Plastics	ENCOURAGED 67. Manufacture of radial tires from aramid fibers and cords 67. 子午胎用芳纶纤维及帘线生产 ( 十三)橡胶和塑料制品业 (13.) R	ENCOURAGED 67. Manufacture of radial tires from aramid fibers and cords 67. 子午胎用芳纶纤维及帘线生产 aubber and plastics	ENCOURAGED 67. Manufacture of radial tires from aramid fibers and cords 67. 子午胎用芳纶纤维及帘线生产

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ENCOURAGED  1. Development and manufacture of new optical multi-functional wide agricultural film  1. 新型光生态多功能宽幅农用薄膜	new optical multi-functional wide agricultural film 68. 新型光生态多功能宽幅农用薄	ENCOURAGED 68. Development and manufacture of new optical multi-functional wide agricultural film 68. 新型光生态多功能宽幅农用薄	new optical multi-functional wide agricultural film 68. 新型光生态多功能宽幅农用薄
开发与生产 ENCOURAGED	膜开发与生产 ENCOURAGED	膜开发与生产 ENCOURAGED	膜开发与生产 ENCOURAGED
2. Cleaning up and recycling of disposed plastic 2.废旧塑料的消解和再利用	69. Cleaning up and recycling of disposed plastic 69. 废旧塑料的回收和再利用	69. Cleaning up and recycling of disposed plastic 69. 废旧塑料的回收和再利用	69. Cleaning up and recycling of disposed plastic 69. 废旧塑料的回收和再利用
ENCOURAGED 3. Development and manufacture of new plastic soft-packaging technology and products (high-separation, multi-purpose membrane, and raw materials) 3. 塑料软包装新技术、新产品(高阻隔、多功能膜及原料)开发与生产	ENCOURAGED 70. Development and manufacture of new plastic soft-packaging technology and products (high-separation, multi-purpose membrane, and raw materials) 70.塑料软包装新技术、新产品(高阻隔、多功能膜及原料)开发与生产	ENCOURAGED 70. Development and manufacture of new plastic soft-packaging technology and products (high-separation, multi-purpose membrane, and raw materials) 70.塑料软包装新技术、新产品(高阻隔、多功能膜及原料)开发与生产	ENCOURAGED 70. Development and manufacture of new plastic soft-packaging technology and products (high-separation, multi-purpose membrane, and raw materials) 70.塑料软包装新技术、新产品(高阻隔、多功能膜及原料)开发与生产
(十四)非金属矿物制品业 (14.) N	। Ion-ferrous metal mineral product man	ufacturing	
ENCOURAGED  1. Development and manufacture of building materials that are energy-saving and environmentally friendly and that reuse waste, are lightweight, high performing, and multi-functional  1.节能、环保、利废、轻质高强、高性能、多功能建筑材料开发生产	ENCOURAGED 71. Development and manufacture of building materials that are energy-saving and environmentally friendly and that reuse waste, are lightweight, high performing, and multi-functional 71.节能、环保、利废、轻质高强、高性能、多功能建筑材料开发生产	ENCOURAGED 71. Development and manufacture of building materials that are energy-saving and environmentally friendly and that reuse waste, are lightweight, high performing, and multi-functional 71.节能、环保、利废、轻质高强、高性能、多功能建筑材料开发生产	ENCOURAGED 71. Development and manufacture of building materials that are energy-saving and environmentally friendly and that reuse waste, are lightweight, high performing, and multi-functional 71.节能、环保、利废、轻质高强、高性能、多功能建筑材料开发生产

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ENCOURAGED  2. Manufacture of energy-saving, high-efficiency chemical construction materials that can replace steel and wood  2.以塑代钢、以塑代木、节能高效的化学建材品生产	ENCOURAGED 72. Manufacture of energy-saving, high-efficiency chemical construction materials that can replace steel and wood 72. 以塑代钢、以塑代木、节能高 效的化学建材品生产	ENCOURAGED 72. Manufacture of energy-saving, high-efficiency chemical construction materials that can replace steel and wood 72. 以塑代钢、以塑代木、节能高 效的化学建材品生产	ENCOURAGED 72. Manufacture of energy-saving, high-efficiency chemical construction materials that can replace steel and wood 72. 以塑代钢、以塑代木、节能高 效的化学建材品生产
ENCOURAGED 3. Manufacture of modified asphalt waterproof roll material with an elastic or plastic body and a normal production of 10 million m2 or more, ethylene propylene rubber with a width above 2 meters, polyvinyl chloride (PVC) waterproof roll with a width above 2 meters, and thermoplastic olefin (TPO) waterproof roll material 3.年产 1000 万平方米及以上弹性体、塑性体改性沥青防水卷材,宽幅(2 米以上)三元乙丙橡胶防水卷材及配套材料,宽幅(2 米以上)聚氯乙烯防水卷材,热塑性聚烯烃(TPO)防水卷材生产	ENCOURAGED 73. Manufacture of modified asphalt waterproof roll material with an elastic or plastic body and a normal production of 10 million m2 or more, ethylene propylene rubber with a width above 2 meters, polyvinyl chloride (PVC) waterproof roll with a width above 2 meters, and thermoplastic olefin (TPO) waterproof roll material 73.年产 1000 万平方米及以上弹性体、塑性体改性沥青防水卷材,宽幅(2 米以上)三元乙丙橡胶防水卷材及配套材料,宽幅(2 米以上)聚氯乙烯防水卷材,热塑性聚烯烃(TPO)防水卷材生产	ENCOURAGED 73. Manufacture of modified asphalt waterproof roll material with an elastic or plastic body and a normal production of 10 million m2 or more, ethylene propylene rubber with a width above 2 meters, polyvinyl chloride (PVC) waterproof roll with a width above 2 meters, and thermoplastic olefin (TPO) waterproof roll material 73.年产 1000 万平方米及以上弹性体、塑性体改性沥青防水卷材,宽幅(2 米以上)三元乙丙橡胶防水卷材及配套材料,宽幅(2 米以上)聚氯乙烯防水卷材,热塑性聚烯烃(TPO)防水卷材生产	ENCOURAGED 73. Manufacture of modified asphalt waterproof roll material with an elastic or plastic body and a normal production of 10 million m2 or more, ethylene propylene rubber with a width above 2 meters, polyvinyl chloride (PVC) waterproof roll with a width above 2 meters, and thermoplastic olefin (TPO) waterproof roll material 73.年产 1000 万平方米及以上弹性体、塑性体改性沥青防水卷材,宽幅(2 米以上)三元乙丙橡胶防水卷材及配套材料,宽幅(2 米以上)聚氯乙烯防水卷材,热塑性聚烯烃(TPO)防水卷材生产
ENCOURAGED 4. Development and manufacture of functional glass with new technology: electromagnetic shield glass, glass substrates for microelectronic applications, lead-free infrared	ENCOURAGED 74. Development and manufacture of functional glass with new technology: electromagnetic shield glass, glass substrates for microelectronic applications, lead-free infrared	ENCOURAGED 74. New technology function glass development and production: shielding electromagnetic glass, microelectronics glass substrate, through the infrared lead-free sulfur-	ENCOURAGED 74. New technology function glass development and production: shielding electromagnetic glass, microelectronics glass substrate, through the infrared lead-free sulfur-

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transmitting glass, electronic-grade large-scale quartz glass products (tubes, plates, crucibles, equipment, and utensils), multi-functional windshield glass with exceptional optical performance, extreme materials and products that use information technology (including high-precision, waveguide-level quartz glass optical fiber tubes and ceramic substrates), and high purity (≥ 99.998%) ultra-pure (≥ 99.999%) crystal purification processing of raw materials  4.新技术功能玻璃开发生产:屏蔽电磁波玻璃、微电子用玻璃基板、透红外线无铅玻璃、电子级大规格石英玻璃制品(管、板、坩埚、仪器器皿等)、光学性能优异多功能风挡玻璃、信息技术用极端材料及制品(包括波导级高精密光纤预制棒石英玻璃套管和陶瓷基板)、高纯(≥99.998%)超纯(≥99.999%)水晶原料提纯加工	transmitting glass, electronic-grade large-scale quartz glass products (tubes, plates, crucibles, equipment, and utensils), multi-functional windshield glass with exceptional optical performance, extreme materials and products that use information technology (including high-precision, waveguide-level quartz glass optical fiber tubes and ceramic substrates), and high purity (≥ 99.998%) ultra-pure (≥ 99.999%) crystal purification processing of raw materials 74.新技术功能玻璃开发生产:屏蔽电磁波玻璃、微电子用玻璃基板、透红外线无铅玻璃、电子级大规格石英玻璃制品(管、板、坩埚、仪器器皿等)、光学性能优异多功能风挡玻璃、信息技术用极端材料及制品(包括波导级高精密光纤预制棒石英玻璃套管和陶瓷基板)、高纯(≥99.998%)超纯(≥99.999%)水晶原料提纯加工	based glass and products, electronic grade large size quartz glass products (tube, plate, crucible, instrument utensils, etc.), excellent optical performance (≥99.998%) ultra-pure (≥99.999%) crystal raw materials purification processing (including high-precision optical fiber preformed quartz glass casing and ceramic substrate), high purity (≥99.998%) ultra-pure (≥99.999%) crystal raw materials purification processing 74. 新技术功能玻璃开发生产:屏蔽电磁波玻璃、微电子用玻璃基板、透红外线无铅硫系玻璃及制品、电子级大规格石英玻璃制品(管、板、坩埚、仪器器皿等)、光学性能优异多功能风挡玻璃、信息技术用极端材料及制品(包括波导级高精密光纤预制棒石英玻璃套管和陶瓷基板)、高纯(≥99.998%)超纯(≥99.999%)水晶原料提纯加工	based glass and products, electronic grade large size quartz glass products (tube, plate, crucible, instrument utensils, etc.), excellent optical performance (≥99.998%) ultra-pure (≥99.999%) crystal raw materials purification processing (including high-precision optical fiber preformed quartz glass casing and ceramic substrate), high purity (≥99.998%) ultra-pure (≥99.999%) crystal raw materials purification processing 74. 新技术功能玻璃开发生产:屏蔽电磁波玻璃、微电子用玻璃基板、透红外线无铅硫系玻璃及制品、电子级大规格石英玻璃制品(管、板、坩埚、仪器器皿等)、光学性能优异多功能风挡玻璃、信息技术用极端材料及制品(包括波导级高精密光纤预制棒石英玻璃套管和陶瓷基板)、高纯(≥99.998%)超纯(≥99.999%)水晶原料提纯加工
ENCOURAGED  5. Manufacture of conductive glass with thin film batteries, solar microscope glass  * This document is an unofficial translation.	ENCOURAGED 75. Manufacture of conductive glass with thin film batteries, solar microscope glass, and architecture conductive glass	ENCOURAGED 75. Manufacture of conductive glass with thin film batteries, solar microscope glass, and architecture conductive glass	ENCOURAGED 75. Manufacture of conductive glass with thin film batteries, solar microscope glass, and architecture conductive glass

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5.薄膜电池导电玻璃、太阳能集光镜玻璃生产	75.薄膜电池导电玻璃、太阳能集光 镜玻璃、建筑用导电玻璃生产 Revised from 2011 Catalogue: Added "architecture conductive glass"	75.薄膜电池导电玻璃、太阳能集光 镜玻璃、建筑用导电玻璃生产	75.薄膜电池导电玻璃、太阳能集光镜玻璃、建筑用导电玻璃生产
ENCOURAGED 6. Manufacture of fiberglass products and special fiberglass products: low-dielectric fiberglass, quartz fiberglass, high-silica fiberglass, high-strength and high-elastic fiberglass, and ceramic fiber and its products 6.玻璃纤维制品及特种玻璃纤维生产:低介电玻璃纤维、石英玻璃纤维、高硅氧玻璃纤维、高强高弹玻璃纤维、高强高弹玻璃纤维、陶瓷纤维等及其制品	ENCOURAGED 76. Manufacture of fiberglass products and special fiberglass products: low-dielectric fiberglass, quartz fiberglass, high-silica fiberglass, high-strength and high- elastic fiberglass, and ceramic fiber and its products 76.玻璃纤维制品及特种玻璃纤维生 产:低介电玻璃纤维、石英玻璃纤维、高硅氧玻璃纤维、高强高弹玻璃纤维、高强高弹玻璃纤维、陶瓷纤维等及其制品	ENCOURAGED 76. Manufacture of fiberglass products and special fiberglass products: low-dielectric fiberglass, quartz fiberglass, high-silica fiberglass, high-strength and high- elastic fiberglass, and ceramic fiber and its products 76.玻璃纤维制品及特种玻璃纤维生 产:低介电玻璃纤维、石英玻璃纤维、高硅氧玻璃纤维、高强高弹玻璃纤维、高强高弹玻璃纤维、陶瓷纤维等及其制品	ENCOURAGED 76. Manufacture of fiberglass products and special fiberglass products: low-dielectric fiberglass, quartz fiberglass, high-silica fiberglass, high-strength and high- elastic fiberglass, and ceramic fiber and its products 76.玻璃纤维制品及特种玻璃纤维生 产:低介电玻璃纤维、石英玻璃纤维、高硅氧玻璃纤维、高强高弹玻璃纤维、高强高弹玻璃纤维、陶瓷纤维等及其制品
ENCOURAGED 7. Manufacture of optical fiber and related products: medical image bundles and laser fiber, super second- and third-generation microchannel plates, optical fiber panels, image inverters and glass light cones 7.光学纤维及制品生产:传像束及激光医疗光纤、超二代和三代微通道板、光学纤维面板、倒像器及玻璃光锥	ENCOURAGED 77. Manufacture of optical fiber and related products: medical image bundles and laser fiber, super second- and third-generation microchannel plates, optical fiber panels, image inverters and glass light cones 77.光学纤维及制品生产:传像束及激光医疗光纤、超二代和三代微通道板、光学纤维面板、倒像器及玻璃光锥	ENCOURAGED 77. Manufacture of optical fiber and related products: medical image bundles and laser fiber, super second- and third-generation microchannel plates, optical fiber panels, image inverters and glass light cones 77.光学纤维及制品生产:传像束及激光医疗光纤、超二代和三代微通道板、光学纤维面板、倒像器及玻璃光锥	ENCOURAGED 77. Manufacture of optical fiber and related products: medical image bundles and laser fiber, super second- and third-generation microchannel plates, optical fiber panels, image inverters and glass light cones 77.光学纤维及制品生产:传像束及激光医疗光纤、超二代和三代微通道板、光学纤维面板、倒像器及玻璃光锥
ENCOURAGED 8. Manufacture of ceramics used as	ENCOURAGED 78. Manufacture of ceramics used as	ENCOURAGED 78. Manufacture of ceramics used as	ENCOURAGED 78. Manufacture of ceramics used as

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high-grade decorative material made with refined new porcelain materials 8.陶瓷原料的标准化精制、陶瓷用高档装饰材料生产	high-grade decorative material made with refined new porcelain materials 78.陶瓷原料的标准化精制、陶瓷用高档装饰材料生产	high-grade decorative material made with refined new porcelain materials 78.陶瓷原料的标准化精制、陶瓷用高档装饰材料生产	high-grade decorative material made with refined new porcelain materials 78.陶瓷原料的标准化精制、陶瓷用高档装饰材料生产
ENCOURAGED  9. Manufacture of cement, electronic glass, ceramics, microporous charcoal bricks, and other environmentally friendly refractory materials (without chromium) that are used for kilns  9.水泥、电子玻璃、陶瓷、微孔炭 砖等窑炉用环保(无铬化)耐火材料生产	ENCOURAGED 79. Manufacture of cement, electronic glass, ceramics, microporous charcoal bricks, and other environmentally friendly refractory materials (without chromium) that are used for kilns 79.水泥、电子玻璃、陶瓷、微孔炭 砖等窑炉用环保(无铬化)耐火材 料生产		ENCOURAGED 79. Manufacture of cement, electronic glass, ceramics, microporous charcoal bricks, and other environmentally friendly refractory materials (without chromium) that are used for kilns 79.水泥、电子玻璃、陶瓷、微孔炭 砖等窑炉用环保(无铬化)耐火材 料生产
ENCOURAGED 10. Manufacture of aluminum nitride (AIN) ceramic base chip, and porous ceramics 10.氮化铝(AIN)陶瓷基片、多孔 陶瓷生产	ENCOURAGED 80. Manufacture of aluminum nitride (AIN) ceramic base chip, and porous ceramics 80.氮化铝(AIN)陶瓷基片、多孔 陶瓷生产	ENCOURAGED 80. Porous ceramic production 80. 多孔陶瓷生产 Revised from 2015 Catalogue: Removed aluminum nitride (AIN) ceramic base chip	ENCOURAGED 80. Porous ceramic production 80. 多孔陶瓷生产 Revised from 2015 Catalogue: Removed aluminum nitride (AIN) ceramic base chip
ENCOURAGED 11. Manufacture of inorganic, non- metal new material and products: composite materials, special types of porcelain, special types of sealing material (high-speed oil sealing materials), special types of friction material (high-speed friction brake products), special types of glue materials, special types of latex	ENCOURAGED 81. Manufacture of inorganic, nonmetal new material and products: composite materials, special types of porcelain, special types of sealing material (high-speed oil sealing materials), special types of friction material (high-speed friction brake products), special types of glue materials, special types of latex	ENCOURAGED 81. Manufacture of inorganic, nonmetal new material and products: composite materials, special types of porcelain, special types of sealing material (high-speed oil sealing materials), special types of friction material (high-speed friction brake products), special types of glue materials, special types of latex	ENCOURAGED 81. Manufacture of inorganic, nonmetal new material and products: composite materials, special types of porcelain, special types of sealing material (high-speed oil sealing materials), special types of friction material (high-speed friction brake products), special types of glue materials, special types of latex

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•	materials, sonar rubber products, and	· ·	·
nanomaterials	nanomaterials	nanomaterials	nanomaterials
11.无机非金属新材料及制品生产:	81.无机非金属新材料及制品生产:	81.无机非金属新材料及制品生产:	81.无机非金属新材料及制品生产:
复合材料、特种陶瓷、特种密封材	复合材料、特种陶瓷、特种密封材	复合材料、特种陶瓷、特种密封材	复合材料、特种陶瓷、特种密封材
料(含高速油封材料)、特种摩擦	料(含高速油封材料)、特种摩擦	料(含高速油封材料)、特种摩擦	料(含高速油封材料)、特种摩擦
材料(含高速摩擦制动制品)、特	材料(含高速摩擦制动制品)、特	材料(含高速摩擦制动制品)、特	材料(含高速摩擦制动制品)、特
种胶凝材料、特种乳胶材料、水声	种胶凝材料、特种乳胶材料、水声	种胶凝材料、特种乳胶材料、水声	种胶凝材料、特种乳胶材料、水声
橡胶制品、纳米材料	橡胶制品、纳米材料	橡胶制品、纳米材料	橡胶制品、纳米材料
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
		9	82. Manufacture of organic-inorganic
composite foam insulation materials			
12.有机-无机复合泡沫保温材料生	82.有机-无机复合泡沫保温材料生	82.有机-无机复合泡沫保温材料生	82.有机-无机复合泡沫保温材料生
产	产	产	产
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
13. Manufacture of high-tech	83. Manufacture of high-tech	83. Manufacture of high-tech	83. Manufacture of high-tech
compound materials: compound and			
pre-preg materials with continuous fibers and enhanced			
thermoplasticity, key auxiliary	thermoplasticity, key auxiliary	thermoplasticity, key auxiliary	thermoplasticity, key auxiliary
material for resin compounds with			
temperature durability of 300°C or			
above, resin base compound material			
(including high-end sports goods and	(including sports goods and	(including sports goods and	(including sports goods and
lightweight, high-strength	lightweight, high-strength	lightweight, high-strength	lightweight, high-strength
transportation tool components),	transportation tool components),	transportation tool components),	transportation tool components),
compound material and products			
with special functions (including			
compound deep water and diving			
material and products, compound material and products for medical	material and products, compound material and products for medical	material and products, compound material and products for medical	material and products, compound material and products for medical
material and products for medical			

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and health recovery use),			
carbon/carbon compound materials,	carbon/carbon compound materials,	carbon/carbon compound materials,	carbon/carbon compound materials,
high-performance ceramic compound material and products, metallic			
compound material and products,			
metallic stratum compound material			
and products, high-pressure	and products, high-pressure	and products, high-pressure	and products, high-pressure
compound tube (pressure ≥320MPa),			
and aviation tires for large passenger airliners			
13.高技术复合材料生产:连续纤维	83.高技术复合材料生产:连续纤维	83.高技术复合材料生产:连续纤维	83.高技术复合材料生产:连续纤维
增强热塑性复合材料和预浸料、耐	增强热塑性复合材料和预浸料、耐	增强热塑性复合材料和预浸料、耐	增强热塑性复合材料和预浸料、耐
温 > 300℃树脂基复合材料成型用	温 > 300℃ 树脂基复合材料成型用	温 > 300°C 树脂基复合材料成型用	温 > 300℃ 树脂基复合材料成型用
工艺辅助材料、树脂基复合材料	工艺辅助材料、树脂基复合材料	工艺辅助材料、树脂基复合材料	工艺辅助材料、树脂基复合材料
(包括高档体育用品、轻质高强交	(包括体育用品、轻质高强交通工	(包括体育用品、轻质高强交通工	(包括体育用品、轻质高强交通工
通工具部件)、特种功能复合材料	具部件)、特种功能复合材料及制	具部件)、特种功能复合材料及制	具部件)、特种功能复合材料及制
及制品(包括深水及潜水复合材料	品(包括深水及潜水复合材料制	品(包括深水及潜水复合材料制	品(包括深水及潜水复合材料制
制品、医用及康复用复合材料制	品、医用及康复用复合材料制	品、医用及康复用复合材料制	品、医用及康复用复合材料制
品)、碳/碳复合材料、高性能陶瓷	品)、碳/碳复合材料、高性能陶瓷	品)、碳/碳复合材料、高性能陶瓷	品)、碳/碳复合材料、高性能陶瓷
基复合材料及制品、金属基和玻璃	基复合材料及制品、金属基和玻璃	基复合材料及制品、金属基和玻璃	基复合材料及制品、金属基和玻璃
基复合材料及制品、金属层状复合	基复合材料及制品、金属层状复合	基复合材料及制品、金属层状复合	基复合材料及制品、金属层状复合
材料及制品、压力≥320MPa 超高压	材料及制品、压力≥320MPa 超高压	材料及制品、压力≥320MPa 超高压	材料及制品、压力≥320MPa 超高压
复合胶管、大型客机航空轮胎	复合胶管、大型客机航空轮胎	复合胶管、大型客机航空轮胎	复合胶管、大型客机航空轮胎
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
14. Manufacture of high-quality	84. Manufacture of high-quality	84. Manufacture of high-quality	84. Manufacture of high-quality
ceramics raw materials: super-fine			
silicon carbide (SiC) powder (purity >			
99%, average grain size <1μm),			

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2016 Draft Revised Catalogue 2011 Catalogue 2015 Catalogue 2017 Catalogue super-fine silicon nitride (Si3N4) super-fine silicon nitride (Si3N4) super-fine silicon nitride (Si3N4) super-fine silicon nitride (Si3N4) powder (purity > 99%, average grain size <1µm), high-purity super-fine size <1μm), high-purity super-fine size <1μm), high-purity super-fine size <1μm), high-purity super-fine aluminum oxide powder (purity > 99.9%, average grain size  $< 0.5 \mu m$ ), 99.9%, average grain size  $< 0.5 \mu m$ ), 99.9%, average grain size  $< 0.5 \mu m$ ), 99.9%, average grain size  $< 0.5 \mu m$ ), low-temperature agglomerated low-temperature agglomerated low-temperature agglomerated low-temperature agglomerated zirconium oxide (ZrO2) powder zirconium oxide (ZrO2) powder zirconium oxide (ZrO2) powder zirconium oxide (ZrO2) powder (agglomerate temperature <1350°C), (agglomerate temperature <1350°C), (agglomerate temperature <1350°C), (agglomerate temperature <1350°C), high-purity aluminum nitride (AIN) high-purity aluminum nitride (AIN) high-purity aluminum nitride (AIN) high-purity aluminum nitride (AIN) power (purity > 99%, average grain size <1 μm), rutile-type titanium dioxide (TiO2) powder dioxide (TiO2) powder dioxide (TiO2) powder dioxide (TiO2) powder (purity>98.5%), white charcoal (grain (purity>98.5%), white charcoal (grain (purity>98.5%), white charcoal (grain (purity>98.5%), white charcoal (grain size <100nm) and barium titanate (purity >99%, grain size < 1μm) (purity >99%, grain size  $< 1\mu m$ ) (purity >99%, grain size  $< 1\mu m$ ) (purity >99%, grain size  $< 1\mu m$ ) |14.精密高性能陶瓷原料生产:碳化 | 84.精密高性能陶瓷原料生产:碳化 | 84.精密高性能陶瓷原料生产:碳化 84.精密高性能陶瓷原料生产:碳化 硅(SiC)超细粉体(纯度>99%, 硅 ( SiC ) 超细粉体 ( 纯度 > 99% , 硅 ( SiC ) 超细粉体 ( 纯度 > 99% , |硅(SiC)超细粉体(纯度>99%, 平均粒径 < 1µm ) 、氮化硅 平均粒径 < 1μm ) 、氮化硅 平均粒径 < 1µm ) 、氮化硅 平均粒径 < 1μm ) 、氮化硅 (Si3N4)超细粉体(纯度>99%, (Si3N4)超细粉体(纯度>99%, (Si3N4)超细粉体(纯度>99%, (Si3N4)超细粉体(纯度>99%, 平均粒径 < 1µm )、高纯超细氧化 平均粒径 < 1µm)、高纯超细氧化 平均粒径 < 1µm ) 、高纯超细氧化 平均粒径 < 1μm ) 、高纯超细氧化 铝微粉(纯度>99.9%,平均粒径 铝微粉 (纯度 > 99.9%, 平均粒径 铝微粉 ( 纯度 > 99.9% , 平均粒径 铝微粉 ( 纯度 > 99.9% , 平均粒径 < 0.5μm ) 、低温烧结氧化锆(ZrO2) | < 0.5μm ) 、低温烧结氧化锆(ZrO2) < 0.5 µm ) 、低温烧结氧化锆(ZrO2) < 0.5μm ) 、低温烧结氧化锆(ZrO2) 粉体(烧结温度<1350℃)、高纯 粉体(烧结温度 < 1350℃)、高纯 粉体(烧结温度<1350℃)、高纯 |粉体(烧结温度 < 1350℃)、高纯 氮化铝(AIN)粉体(纯度>99%, | 氮化铝(AIN)粉体(纯度>99%, |氮化铝(AIN)粉体(纯度>99%, |氮化铝(AIN)粉体(纯度>99%, 平均粒径 < 1 μm )、金红石型 TiO2 平均粒径 < 1µm ) 、金红石型 TiO2 平均粒径 < 1µm ) 、金红石型 TiO2 平均粒径 < 1µm )、金红石型 TiO2 粉体(纯度>98.5%)、白炭黑 粉体(纯度>98.5%)、白炭黑 粉体(纯度>98.5%)、白炭黑 粉体 ( 纯度 > 98.5% ) 、白炭黑

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(粒径<100nm)、钛酸钡(纯度	(粒径<100nm)、钛酸钡(纯度	(粒径<100nm)、钛酸钡(纯度	(粒径<100nm)、钛酸钡(纯度
>99%, 粒径<1µm)	>99%,粒径<1μm)	>99%,粒径<1μm)	>99%,粒径<1μm)
high-quality artificial crystal and crystal film products: high-quality synthetic crystals (piezoelectric crystals and UV-transparent crystals), super-hard crystals (cubic boron nitride crystals), heat-resistant and high insulation synthetic crystals (synthetic mica), new electro-optical crystals, high-power laser crystals and large-scale scintillation crystals, diamond film tools, artificial diamond	The state of the s	high-quality artificial crystal and crystal film products: high-quality synthetic crystals (piezoelectric crystals and UV-transparent crystals), super-hard crystals (cubic boron nitride crystals), heat-resistant and high insulation synthetic crystals (synthetic mica), new electro-optical crystals, high-power laser crystals and large-scale scintillation crystals, diamond film tools, artificial diamond	ENCOURAGED 85. Development and manufacture of high-quality artificial crystal and crystal film products: high-quality synthetic crystals (piezoelectric crystals and UV-transparent crystals), super-hard crystals (cubic boron nitride crystals), heat-resistant and high insulation synthetic crystals (synthetic mica), new electro-optical crystals, high-power laser crystals and large-scale scintillation crystals, diamond film tools, artificial diamond
saw blades with a thickness of 0.3 mm or below	saw blades with a thickness of 0.3 mm or below	saw blades with a thickness of 0.3 mm or below	saw blades with a thickness of 0.3 mm or below
	85.高品质人工晶体及晶体薄膜制品	85.高品质人工晶体及晶体薄膜制品	85.高品质人工晶体及晶体薄膜制品
开发生产:高品质人工合成水晶	开发生产:高品质人工合成水晶	开发生产:高品质人工合成水晶	开发生产:高品质人工合成水晶
(压电晶体及透紫外光晶体)、超	(压电晶体及透紫外光晶体)、超	(压电晶体及透紫外光晶体)、超	(压电晶体及透紫外光晶体)、超
硬晶体(立方氮化硼晶体)、耐高 温高绝缘人工合成绝缘晶体(人工	硬晶体(立方氮化硼晶体)、耐高 温高绝缘人工合成绝缘晶体(人工	硬晶体(立方氮化硼晶体)、耐高 温高绝缘人工合成绝缘晶体(人工	硬晶体(立方氮化硼晶体)、耐高 温高绝缘人工合成绝缘晶体(人工
合成云母)、新型电光晶体、大功	合成云母)、新型电光晶体、大功	合成云母)、新型电光晶体、大功	合成云母)、新型电光晶体、大功
率激光晶体及大规格闪烁晶体、金	率激光晶体及大规格闪烁晶体、金	率激光晶体及大规格闪烁晶体、金	率激光晶体及大规格闪烁晶体、金
刚石膜工具、厚度 0.3mm 及以下超	刚石膜工具、厚度 0.3mm 及以下超	刚石膜工具、厚度 0.3mm 及以下超	刚石膜工具、厚度 0.3mm 及以下超
薄人造金刚石锯片	薄人造金刚石锯片	薄人造金刚石锯片	薄人造金刚石锯片
ENCOURAGED  16. Fine-processing of non-metal ores (super-fine grinding, super-	86. Fine-processing of non-metal ores	ENCOURAGED 86. Fine-processing of non-metal ores (super-fine grinding, super-	ENCOURAGED 86. Fine-processing of non-metal ores (super-fine grinding, super-

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purification, refining, and modification) 16.非金属矿精细加工(超细粉碎、	purification, refining, and modification) 86. 非金属矿精细加工(超细粉	purification, refining, and modification) 86. 非金属矿精细加工(超细粉	purification, refining, and modification) 86. 非金属矿精细加工(超细粉
高纯、精制、改性)	碎、高纯、精制、改性	碎、高纯、精制、改性)	碎、高纯、精制、改性)
ENCOURAGED 17. Manufacture of super-high electric capacity graphite electrode 17.超高功率石墨电极生产	ENCOURAGED 87. Manufacture of super-high electric capacity graphite electrode 87. 超高功率石墨电极生产	ENCOURAGED 87. Manufacture of super-high electric capacity graphite electrode 87. 超高功率石墨电极生产	ENCOURAGED 87. Manufacture of super-high electric capacity graphite electrode 87. 超高功率石墨电极生产
ENCOURAGED 18. Manufacture of pearlescent mica (grain size between 3-150µm) 18.珠光云母生产(粒径 3-150µm)	ENCOURAGED 88. Manufacture of pearlescent mica (grain size between 3-150µm) 88. 珠光云母生产(粒径 3-	ENCOURAGED 88. Manufacture of pearlescent mica (grain size between 3-150µm) 88. 珠光云母生产(粒径 3-	ENCOURAGED 88. Manufacture of pearlescent mica (grain size between 3-150µm) 88. 珠光云母生产(粒径 3-
	150μm )	150μm )	150μm )
ENCOURAGED 19. Manufacture of fabrics woven in multidimensional fabric that imitates appearances 19.多维多向整体编制织物及仿形织物生产	ENCOURAGED 89. Manufacture of fabrics woven in multidimensional fabric that imitates appearances 89. 多维多向整体编制织物及仿形 织物生产	ENCOURAGED 89. Manufacture of fabrics woven in multidimensional fabric that imitates appearances 89. 多维多向整体编制织物及仿形织物生产	ENCOURAGED 89. Manufacture of fabrics woven in multidimensional fabric that imitates appearances 89. 多维多向整体编制织物及仿形 织物生产
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
	90. Non-hazardous treatment of solid waste using new types of dry cement kilns		90. Non-hazardous treatment of solid waste using new types of dry cement kilns
20.利用新型干法水泥窑无害化处置	90. 利用新型干法水泥窑无害化处	90. 利用新型干法水泥窑无害化处	90. 利用新型干法水泥窑无害化处
固体废弃物	置固体废弃物	置固体废弃物	置固体废弃物
ENCOURAGED 21. Reuse and recycling of	ENCOURAGED 91. Reuse and recycling of	ENCOURAGED 91. Reuse and recycling of	ENCOURAGED 91. Reuse and recycling of

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construction waste	construction waste	construction waste	construction waste
21.建筑垃圾再生利用	91. 建筑垃圾再生利用	91. 建筑垃圾再生利用	91. 建筑垃圾再生利用
ENCOURAGED 22. Comprehensive use of industrial gypsum byproducts 22.工业副产石膏综合利用	ENCOURAGED 92. Comprehensive use of industrial gypsum byproducts 92.工业副产石膏综合利用	ENCOURAGED 92. Industrial by-product gypsum and other industrial waste comprehensive utilization 92. 工业副产石膏等产业废弃物综合利用 Revised from 2015 Catalogue: Added	ENCOURAGED 92. Industrial by-product gypsum and other industrial waste comprehensive utilization 92. 工业副产石膏等产业废弃物综合利用 Revised from 2015 Catalogue: Added
		"other industrial waste"	"other industrial waste"
ENCOURAGED 23. Technological development and application of non-metallic mine tailings, and ecological restoration of mines	ENCOURAGED 93. Technological development and application of non-metallic mine tailings, and ecological restoration of mines	ENCOURAGED 93. Technological development and application of non-metallic mine tailings, and ecological restoration of mines	ENCOURAGED 93. Technological development and application of non-metallic mine tailings, and ecological restoration of mines
23.非金属矿山尾矿综合利用的新技	93.非金属矿山尾矿综合利用的新技	93.非金属矿山尾矿综合利用的新技	93.非金属矿山尾矿综合利用的新技
术开发和应用及矿山生态恢复	术开发和应用及矿山生态恢复	术开发和应用及矿山生态恢复	术开发和应用及矿山生态恢复
(十五)有色金属冶炼和压延加工业		nd rolling	
ENCOURAGED  1. Manufacture of monocrystalline silicon and polished disks above 200 mm in diameter  1.直径 200mm 以上硅单晶及抛光片	ENCOURAGED 94. Manufacture of monocrystalline silicon and polished disks above 200 mm in diameter 94. 直径 200mm 以上硅单晶及抛光 片生产	ENCOURAGED 94. Manufacture of monocrystalline silicon and polished disks above 200 mm in diameter 94. 直径 200mm 以上硅单晶及抛光 片生产	ENCOURAGED 94. Manufacture of monocrystalline silicon and polished disks above 200 mm in diameter 94. 直径 200mm 以上硅单晶及抛光 片生产
ENCOURAGED  2. Manufacture of new, high-tech non-ferrous materials: compound semiconductor materials (gallium arsenide, gallium phosphide, cobalt	ENCOURAGED 95. Manufacture of new, high-tech non-ferrous materials: compound semiconductor materials (gallium arsenide, gallium phosphide, cobalt	ENCOURAGED 95. Manufacture of new, high-tech non-ferrous materials: compound semiconductor materials (gallium arsenide, gallium phosphide, cobalt	ENCOURAGED 95. Manufacture of new, high-tech non-ferrous materials: compound semiconductor materials (gallium arsenide, gallium phosphide, cobalt

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2011 Catalogue 2015 Catalogue 2016 Draft Revised Catalogue 2017 Catalogue phosphide, and gallium nitride); highphosphide, and gallium nitride); highphosphide, and gallium nitride); highphosphide, and gallium nitride); hightemperature superconductor temperature superconductor temperature superconductor temperature superconductor materials; memory alloy materials materials; memory alloy materials materials; memory alloy materials materials; memory alloy materials (nickel titanium, copper-, and iron-(nickel titanium, copper-, and iron-(nickel titanium, copper-, and iron-(nickel titanium, copper-, and ironbased memory alloy materials); based memory alloy materials); based memory alloy materials); based memory alloy materials); super-fine (nanometer) calcium super-fine (nanometer) calcium super-fine (nanometer) calcium super-fine (nanometer) calcium carbide and super-fine (nanometer) carbide and super-fine (nanometer) carbide and super-fine (nanometer) carbide and super-fine (nanometer) crystal hard alloys; super hard compound materials; precious metalcompound materials; precious metalcompound materials; precious metalcompound materials; precious metalbased compound materials, based compound materials, based compound materials, based compound materials, aluminum foil for radiators; combination of light metal composite combination of light metal composite combination of light metal composite aluminum foil for high- and mediummaterials and dissimilar materials, materials and dissimilar materials, materials and dissimilar materials, pressure cathode capacitor; special aluminum foil for radiators: aluminum foil for radiators; aluminum foil for radiators: large-scale aluminum alloy materials; aluminum foil for high- and mediumaluminum foil for high- and mediumaluminum foil for high- and mediumsophisticated aluminum alloy molds pressure cathode capacitor; special pressure cathode capacitor; special pressure cathode capacitor; special and casts; suspension cables for large-scale aluminum alloy materials; large-scale aluminum alloy materials; large-scale aluminum alloy materials; electric railway; super-thin copper sophisticated aluminum alloy molds sophisticated aluminum alloy molds sophisticated aluminum alloy molds strip; copper alloy material for and casts; suspension cables for and casts; suspension cables for and casts; suspension cables for electric railway; super-thin copper electric railway; super-thin copper electric railway; super-thin copper erosion resistant heat exchangers; high-performance copper-nickel, strip; copper alloy material for strip; copper alloy material for strip; copper alloy material for copper-iron alloy strips, berylliumerosion resistant heat exchangers; erosion resistant heat exchangers; erosion resistant heat exchangers; high-performance copper-nickel, high-performance copper-nickel, high-performance copper-nickel, copper strips, wire, pipe, and bar processing materials; heat- and wear copper-iron alloy strips, berylliumcopper-iron alloy strips, berylliumcopper-iron alloy strips, berylliumcopper strips, wire, pipe, and bar copper strips, wire, pipe, and bar copper strips, wire, pipe, and bar resistant tungsten filaments; magnesium alloy casts; lead-free processing materials; heat- and wearprocessing materials; heat- and wearprocessing materials; heat- and wearwelding material, magnesium alloy resistant tungsten filaments; resistant tungsten filaments; resistant tungsten filaments; magnesium alloy casts; lead-free and other applied materials; magnesium alloy casts; lead-free magnesium alloy casts; lead-free aluminum foam; titanium alloy strips welding material, magnesium alloy welding material, magnesium alloy welding material, magnesium alloy and welding connecting tubes; and other applied materials; and other applied materials; and other applied materials; aluminum foam; titanium alloy aluminum foam; titanium alloy zirconium sponge for nuclear power; aluminum foam; titanium alloy and tungsten and molybdenum deepsmelting and processing; zirconium smelting and processing; zirconium smelting and processing; zirconium processed products sponge for nuclear power; and sponge for nuclear power; and sponge for nuclear power; and tungsten and molybdenum deeptungsten and molybdenum deeptungsten and molybdenum deep-2.高新技术有色金属材料生产:化 processed products processed products processed products

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue		
合物半导体材料(砷化镓、磷化	95.高新技术有色金属材料生产:化	95.高新技术有色金属材料生产:化	95.高新技术有色金属材料生产:化		
镓、磷化锢、氮化镓 ) , 高温超导	合物半导体材料(砷化镓、磷化	合物半导体材料(砷化镓、磷化	合物半导体材料(砷化镓、磷化		
材料,记忆合金材料(钛镍、铜基及	镓、磷化锢、氮化镓 ) , 高温超导	镓、磷化锢、氮化镓 ) , 高温超导	镓、磷化锢、氮化镓 ) , 高温超导		
铁基记忆合金材料),超细(纳米)	材料,记忆合金材料(钛镍、铜基及	材料,记忆合金材料(钛镍、铜基及	材料,记忆合金材料(钛镍、铜基及		
碳化钙及超细(纳米)晶硬质合	铁基记忆合金材料),超细(纳米)	铁基记忆合金材料),超细(纳米)	铁基记忆合金材料),超细(纳米)		
金,超硬复合材料,贵金属复合材	碳化钙及超细(纳米)晶硬质合	碳化钙及超细(纳米)晶硬质合	碳化钙及超细(纳米)晶硬质合		
料,散热器用铝箔,中高压阴极电	金,超硬复合材料,贵金属复合材	金,超硬复合材料,贵金属复合材	金,超硬复合材料,贵金属复合材		
容铝箔,特种大型铝合金型材,铝	料,轻金属复合材料及异种材结	料,轻金属复合材料及异种材结	料,轻金属复合材料及异种材结		
合金精密模锻件, 电气化铁路架空	合,散热器用铝箔,中高压阴极电	合,散热器用铝箔,中高压阴极电	合,散热器用铝箔,中高压阴极电		
导线,超薄铜带,耐蚀热交换器铜	容铝箔,特种大型铝合金型材,铝	容铝箔,特种大型铝合金型材,铝	容铝箔,特种大型铝合金型材,铝		
合金材,高性能铜镍、铜铁合金	合金精密模锻件, 电气化铁路架空	合金精密模锻件, 电气化铁路架空	合金精密模锻件, 电气化铁路架空		
带,铍铜带、线、管及棒加工材,	导线,超薄铜带,耐蚀热交换器铜	导线,超薄铜带,耐蚀热交换器铜	导线,超薄铜带,耐蚀热交换器铜		
耐高温抗衰钨丝,镁合金铸件,无	合金材,高性能铜镍、铜铁合金	合金材,高性能铜镍、铜铁合金	合金材,高性能铜镍、铜铁合金		
铅焊料,镁合金及其应用产品,泡	带,铍铜带、线、管及棒加工材,	带,铍铜带、线、管及棒加工材,	带,铍铜带、线、管及棒加工材,		
沫铝,钛合金带材及钛焊接管,原	耐高温抗衰钨丝,镁合金铸件,无	耐高温抗衰钨丝,镁合金铸件,无	耐高温抗衰钨丝,镁合金铸件,无		
子能级海绵锆,钨及钼深加工产品	铅焊料,镁合金及其应用产品,泡	铅焊料,镁合金及其应用产品,泡	铅焊料,镁合金及其应用产品,泡		
	沫铝,钛合金冶炼及加工,原子能	沫铝,钛合金冶炼及加工,原子能	沫铝,钛合金冶炼及加工,原子能		
	级海绵锆,钨及钼深加工产品	级海绵锆,钨及钼深加工产品	级海绵锆,钨及钼深加工产品		
	Revised				
(十六)金属制品业 (16.) Metal pi	(十六)金属制品业 (16.) Metal products				
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED		
Manufacture and research and development of light-weight, eco-	96. Manufacture and research and development of light-weight, eco-	96. Manufacture and research and development of light-weight, eco-	96. Manufacture and research and development of light-weight, eco-		
friendly new materials for aviation,	friendly new materials for aviation,	friendly new materials for aviation,	friendly new materials for aviation,		
aerospace, auto, and motorcycles	aerospace, auto, and motorcycles	aerospace, auto, and motorcycles	aerospace, auto, and motorcycles		
(including specialized aluminum	(including specialized aluminum	(including specialized aluminum	(including specialized aluminum		

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2011 Catalogue	2015 Catalogue	2016 Draft Revised Catalogue	2017 Catalogue
boards, aluminum and magnesium alloy materials, aluminum alloy frames for motorcycles)  1.航空、航天、汽车、摩托车轻量 化及环保型新材料研发与制造(专用铝板、铝镁合金材料、摩托车铝合金车架等)		boards, aluminum and magnesium alloy materials, aluminum alloy frames for motorcycles) 96.航空、航天、汽车、摩托车轻量 化及环保型新材料研发与制造(专 用铝板、铝镁合金材料、摩托车铝 合金车架等)	boards, aluminum and magnesium alloy materials, aluminum alloy frames for motorcycles) 96.航空、航天、汽车、摩托车轻量 化及环保型新材料研发与制造(专 用铝板、铝镁合金材料、摩托车铝 合金车架等)
ENCOURAGED  2. Development and manufacture of hardware and equipment for construction and water-heating  2.建筑五金件、水暖器材及其五金件开发、生产	Deleted		
	ENCOURAGED 97. R&D and manufacture of light metal, semi-solid rapid prototyping material (RP&M) 97. 轻金属半固态快速成形材料研 发与制造 Added	ENCOURAGED 97. R&D and manufacture of light metal, semi-solid rapid prototyping material (RP&M) 97. 轻金属半固态快速成形材料研 发与制造	ENCOURAGED 97. R&D and manufacture of light metal, semi-solid rapid prototyping material (RP&M) 97. 轻金属半固态快速成形材料研 发与制造

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ENCOURAGED  3. Production and processing	ENCOURAGED  98. Production and processing	ENCOURAGED  98. Production and processing	ENCOURAGED  98. Production and processing
(including processing inner and outer	(including processing inner and outer	(including processing inner and outer	(including processing inner and outer
surface coatings) of metal packaging	surface coatings) of metal packaging	surface coatings) of metal packaging	surface coatings) of metal packaging
for all types of food, oil, fruits and	for all types of food, oil, fruits and	for all types of food, oil, fruits and	for all types of food, oil, fruits and
vegetables, beverages, and daily household chemical products (with a	vegetables, beverages, and daily household chemical products (with a	vegetables, beverages, and daily household chemical products (with a	vegetables, beverages, and daily household chemical products
thickness of less than 0.3 mm)	thickness of less than 0.3 mm)	thickness of less than 0.3 mm)	(complete products with a thickness
3.用于包装各类粮油食品、果蔬、	) 198.用于包装各类粮油食品、果蔬、	  98.用于包装各类粮油食品、果蔬、	of less than 0.3 mm)
饮料、日化产品等内容物的金属包	饮料、日化产品等内容物的金属包	饮料、日化产品等内容物的金属包	98.用于包装各类粮油食品、果蔬、
装制品(厚度 0.3 毫米以下)的制	装制品(厚度 0.3 毫米以下)的制	装制品(厚度 0.3 毫米以下)的制	饮料、日化产品等内容物的金属包
造及加工(包括制品的内外壁印涂		造及加工(包括制品的内外壁印涂	装制品(应为完整品,厚度 0.3 毫
	造及加工(包括制品的内外壁印涂		米以下)的制造及加工(包括制品
加工)	加工)	加工) Revised from 2015 Catalogue: Added	的内外壁印涂加工)
		"complete product" requirements	Revised from 2015 Catalogue: Added
			"complete product" requirements
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
4. Manufacture of nickel stainless	99. Manufacture of nickel stainless	99. Manufacture of nickel stainless	99. Manufacture of nickel stainless
steel products	steel products	steel products	steel products
4.节镍不锈钢制品的制造	99.节镍不锈钢制品的制造	99.节镍不锈钢制品的制造	99.节镍不锈钢制品的制造
(十七) 通用设备制造业 (17.) Ge	neral equipment manufacturing		
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
1. Manufacture of high-end digital	100. Manufacture of high-end digital	100. High-end CNC machine tools and	100. High-end CNC machine tools and
machine tools and critical spare	machine tools and critical spare	key components manufacturing: five-	key components manufacturing: five-
parts: computer numerically	parts: computer numerically	axis CNC machine tools, CNC	axis CNC machine tools, CNC
controlled (CNC) machine tools with five bearings; digitally controlled	controlled (CNC) machine tools with five bearings; digitally controlled	coordinate boring and milling machining center, CNC coordinate	coordinate boring and milling machining center, CNC coordinate
boring and milling processing centers;	boring and milling processing centers;	grinding machine	grinding machine
digitally controlled grinders; CNC	digitally controlled grinders; CNC	100. 高档数控机床及关键零部件制	100. 高档数控机床及关键零部件制
system with five bearings and servo	system with five bearings and servo	造:五轴联动数控机床、数控坐标	造:五轴联动数控机床、数控坐标
installations; digital precision processing with high-speed, extra-	installations; digital precision processing with high-speed, extra-	堂铣加工中心、数控坐标磨床	堂铣加工中心、数控坐标磨床

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hard cutting tools	hard cutting tools	Revised from 2015 Catalogue:	Revised from 2015 Catalogue:
1.高档数控机床及关键零部件制	100.高档数控机床及关键零部件制	Removed CNC system with five	Removed CNC system with five
造:五轴联动数控机床、数控坐标	造: 五轴联动数控机床、数控坐标	bearings and servo installations; digital precision processing with high-	bearings and servo installations; digital precision processing with high-
镗铣加工中心、数控坐标磨床、五	<b>镗铣加工中心、数控坐标磨床、五</b>	speed, extra-hard cutting tools	speed, extra-hard cutting tools
轴联动数控系统及伺服装置、精密	轴联动数控系统及伺服装置、精密		
数控加工用高速超硬刀具	数控加工用高速超硬刀具		
ENCOURAGED  2. Manufacture of multi-position forging presses of 1,000 tons or more  2.1000 吨及以上多工位镦锻成型机	ENCOURAGED 101. Manufacture of multi-position forging presses of 1,000 tons or more 101.1000 吨及以上多工位镦锻成型	ENCOURAGED 101. Manufacture of multi-position forging presses of 1,000 tons or more 101.1000 吨及以上多工位镦锻成型	ENCOURAGED 101. Manufacture of multi-position forging presses of 1,000 tons or more 101.1000 吨及以上多工位镦锻成型
制造	机制造	机制造	机制造
ENCOURAGED 3. Manufacture of dismantlers, crushers, and post-possessing equipment for junk vehicles 3.报废汽车拆解、破碎及后处理分选设备制造	ENCOURAGED 102. Manufacture of dismantlers, crushers, and post-possessing equipment for junk vehicles 102.报废汽车拆解、破碎及后处理 分选设备制造	ENCOURAGED 102. Manufacture of dismantlers, crushers, and post-possessing equipment for junk vehicles 102.报废汽车拆解、破碎及后处理 分选设备制造	ENCOURAGED 102. Manufacture of dismantlers, crushers, and post-possessing equipment for junk vehicles 102.报废汽车拆解、破碎及后处理 分选设备制造
ENCOURAGED 4. Manufacture of FTL (flexible transfer lines) 4.FTL 柔性生产线制造	ENCOURAGED 103. Manufacture of FTL (flexible transfer lines) 103.FTL 柔性生产线制造	ENCOURAGED 103. Manufacture of FTL (flexible transfer lines) 103.FTL 柔性生产线制造	ENCOURAGED 103. Manufacture of FTL (flexible transfer lines) 103.FTL 柔性生产线制造
ENCOURAGED 5. Manufacture of vertical multi- jointed industrial robots, welding robots, and other welding equipment installation equipment 5.垂直多关节工业机器人、焊接机 器人及其焊接装置设备制造	ENCOURAGED 104. Manufacture of vertical multi- jointed industrial robots, welding robots, and other welding equipment installation equipment 104.垂直多关节工业机器人、焊接 机器人及其焊接装置设备制造	ENCOURAGED 104. Manufacture of vertical multi- jointed industrial robots, welding robots, and other welding equipment installation equipment 104.垂直多关节工业机器人、焊接 机器人及其焊接装置设备制造	ENCOURAGED 104. Manufacture of vertical multi- jointed industrial robots, welding robots, and other welding equipment installation equipment 104.垂直多关节工业机器人、焊接 机器人及其焊接装置设备制造

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ENCOURAGED 6. Manufacture of special types of processing machinery: laser cutting and welding equipment sets; precision laser processing equipment; digital, low-speed wire electrical discharger machining (EDM) equipment; and submicron-range disintegrators 6.特种加工机械制造:激光切割和拼焊成套设备、激光精密加工设备、数控低速走丝电火花线切割机、亚微米级超细粉碎机	ENCOURAGED 105. Manufacture of special types of processing machinery: laser cutting and welding equipment sets; precision laser processing equipment; digital, low-speed wire electrical discharger machining (EDM) equipment; and submicron-range disintegrators 105.特种加工机械制造:激光切割和拼焊成套设备、激光精密加工设备、数控低速走丝电火花线切割机、亚微米级超细粉碎机	ENCOURAGED 105. Submicron ultrafine grinder manufacturing 105. 亚微米级超细粉碎机制造 Revised from 2015 Catalogue: Removed laser cutting and welding equipment sets, precision laser processing equipment, and digital, low-speed wire electrical discharger machining (EDM) equipment	ENCOURAGED  105. Submicron ultrafine grinder manufacturing  105. 亚微米级超细粉碎机制造 Revised from 2015 Catalogue: Removed laser cutting and welding equipment sets, precision laser processing equipment, and digital, low-speed wire electrical discharger machining (EDM) equipment
ENCOURAGED 7. Manufacture of wheeled and crawler cranes of 400 tons or more (limited to EJVs and CJVs) 7.400 吨及以上轮式、履带式起重机械制造(限于合资、合作)	ENCOURAGED 106. Manufacture of wheeled and crawler cranes of 400 tons or more 106. 400 吨及以上轮式、履带式起重机械制造 Revised: No longer limited to EJVs and CJVs	ENCOURAGED 106. Manufacture of wheeled and crawler cranes of 400 tons or more 106. 400 吨及以上轮式、履带式起 重机械制造	ENCOURAGED 106. Manufacture of wheeled and crawler cranes of 400 tons or more 106. 400 吨及以上轮式、履带式起 重机械制造
ENCOURAGED 8. Design & manufacture of high- pressure piston pumps & motors with working pressure equal to or above 35 MPa and low-speed, high-torque motors with working pressure equal to/above 35 MPa 8.工作压力≥35MPa 高压柱塞泵及马 达、工作压力≥35MPa 低速大扭矩 马达的设计与制造	working pressure equal to or above 35 MPa, and low-speed, high-torque motors with working pressure equal to/above 35 MPa	working pressure equal to or above 35 MPa, and low-speed, high-torque motors with working pressure equal to/above 35 MPa 107.工作压力≥35MPa 高压柱塞泵及马达、工作压力≥35MPa 低速大	ENCOURAGED  107. Design & manufacture of high- pressure piston pumps & motors with working pressure equal to or above 35 MPa, and low-speed, high-torque motors with working pressure equal to/above 35 MPa  107.工作压力≥35MPa 高压柱塞泵 及马达、工作压力≥35MPa 低速大 扭矩马达的设计与制造

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	ENCOURAGED	ENCOURAGED	ENCOURAGED
9. Manufacture of integrated	108. Manufacture of integrated	108. Manufacture of integrated	108. Manufacture of integrated
multichannel valve, and electro-			
hydraulic proportional servo	hydraulic proportional servo	hydraulic proportional servo	hydraulic proportional servo
components with working pressure			
equal to or above 25 MPa			
9.工作压力≥25MPa 的整体式液压多	108.工作压力≥25MPa 的整体式液	108.工作压力≥25MPa 的整体式液	108.工作压力≥25MPa 的整体式液
路阀,电液比例伺服元件制造	压多路阀,电液比例伺服元件制造	压多路阀,电液比例伺服元件制造	压多路阀,电液比例伺服元件制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
	109. Design and manufacture of	109. Design and manufacture of	109. Design and manufacture of
,	pneumatic electromagnetic valves	pneumatic electromagnetic valves	pneumatic electromagnetic valves
	below 0.35 W, and high-frequency	below 0.35 W, and high-frequency	below 0.35 W, and high-frequency
electric control valves above 200 Hz			
10.阀岛、功率 0.35W 以下气动电	109.阀岛、功率 0.35W 以下气动电	109.阀岛、功率 0.35W 以下气动电	109.阀岛、功率 0.35W 以下气动电
磁阀、200Hz 以上高频电控气阀设	磁阀、200Hz 以上高频电控气阀设	磁阀、200Hz 以上高频电控气阀设	磁阀、200Hz 以上高频电控气阀设
计与制造	计与制造	计与制造	计与制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
11. Design and manufacture of	110. Design and manufacture of	110. Design and manufacture of	110. Design and manufacture of
hydrostatic drive systems	hydrostatic drive systems	hydrostatic drive systems	hydrostatic drive systems
11.静液压驱动装置设计与制造	110.静液压驱动装置设计与制造	110.静液压驱动装置设计与制造	110.静液压驱动装置设计与制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
12. Development and manufacture of	111. Development and manufacture	111. Development and manufacture	111. Development and manufacture
non-contact gas seal above 10 MPa	of non-contact gas seal above 10	of non-contact gas seal above 10	of non-contact gas seal above 10
. •	MPa and dry gas seal above 10 MPa	MPa and dry gas seal above 10 MPa	MPa and dry gas seal above 10 MPa
	(including experimental devices)	(including experimental devices)	(including experimental devices)
12.压力 10MPa 以上非接触式气膜	111.压力 10MPa 以上非接触式气膜	111.压力 10MPa 以上非接触式气膜	111.压力 10MPa 以上非接触式气膜
密封、压力 10MPa 以上干气密封	密封、压力 10MPa 以上干气密封	密封、压力 10MPa 以上干气密封	密封、压力 10MPa 以上干气密封
(包括实验装置)的开发与制造	(包括实验装置)的开发与制造	(包括实验装置)的开发与制造	(包括实验装置)的开发与制造
	ENCOURAGED	ENCOURAGED	ENCOURAGED
13. Development and manufacture of	•	112. Development and manufacture	112. Development and manufacture
polymer materials for autos	of polymer materials for autos	of polymer materials for autos	of polymer materials for autos

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

(including friction plates, modified phenolic pistons, non-metallic hydraulic master and slave pumps, and others)

|13.汽车用高分子材料(摩擦片、改|112.汽车用高分子材料(摩擦片、 型酚醛活塞、非金属液压总分泵 等)设备开发与制造

(including friction plates, modified phenolic pistons, non-metallic hydraulic master and slave pumps, and others) 改型酚醛活塞、非金属液压总分泵 等)设备开发与制造

(including friction plates, modified phenolic pistons, non-metallic hydraulic master and slave pumps, and others) 112.汽车用高分子材料(摩擦片、 改型酚醛活塞、非金属液压总分泵 等)设备开发与制造

(including friction plates, modified phenolic pistons, non-metallic hydraulic master and slave pumps, and others) 112.汽车用高分子材料(摩擦片、 改型酚醛活塞、非金属液压总分泵 等)设备开发与制造

#### **ENCOURAGED**

14. Manufacture of third- and fourthgeneration wheel hub bearings for autos (including functional parts inside the bearings such as circular belts, flanges, and sensors); mid-to high-end digital machine tools and bearing processing centers (processing centers must have a linked capacity of more than three bearings, with repeated positioning precision of 3-4 µm); high-speed wire materials and rolling bearings that use sheet metal (including singlepurpose wire-rod rollers with a rolling speed of 120 m/s or faster, frame and work roll bearings for thin-sheet roller processed sheets with a thickness of 2 mm or more); highspeed railway bearings (faster than 200km/h); low-noise bearings with vibration value below Z4 (including noise levels of Z4, Z4P, V4, and V4P); and manufacture of various P4- and P2-level bearings, wind turbine bearings (axis bearings, accelerator bearings, generator bearings, etc.

# **ENCOURAGED**

113. Manufacture of third- and above 113. Manufacture of third- and above generation wheel hub bearings for autos; mid- to high-end digital centers; high-speed wire materials and rolling bearings that use sheet metal; high-speed railway bearings; low-noise bearings with vibration value below Z4: and manufacture of various P4- and P2-level bearings, wind turbine bearings; aviation bearings 113.第三代及以上轿车轮毂轴承、

高中档数控机床和加工中心轴承、 高速线材和板材轧机轴承、高速铁 路轴承、振动值 Z4 以下低噪音轴 承、各类轴承的 P4 和 P2 级轴承、 风力发电机组轴承、航空轴承制造 Revised from 2011 Catalogue: Removed "(including functional parts inside the bearings such as circular belts, flanges, and sensors)"; "(processing centers must have a linked capacity of more than three

# **ENCOURAGED**

generation wheel hub bearings for autos; mid- to high-end digital centers; high-speed wire materials and rolling bearings that use sheet metal; high-speed railway bearings; low-noise bearings with vibration value below Z4: and manufacture of various P4- and P2-level bearings, wind turbine bearings; aviation bearings

113.第三代及以上轿车轮毂轴承、 高中档数控机床和加工中心轴承、 高速线材和板材轧机轴承、高速铁 路轴承、振动值 Z4 以下低噪音轴 承、各类轴承的 P4 和 P2 级轴承、 风力发电机组轴承、航空轴承制造

# **ENCOURAGED**

113. Manufacture of third- and above generation wheel hub bearings for autos; mid- to high-end digital machine tools and bearing processing machine tools and bearing processing machine tools and bearing processing centers; high-speed wire materials and rolling bearings that use sheet metal; high-speed railway bearings; low-noise bearings with vibration value below Z4: and manufacture of various P4- and P2-level bearings, wind turbine bearings; aviation bearings

113.第三代及以上轿车轮毂轴承、 高中档数控机床和加工中心轴承、 高速线材和板材轧机轴承、高速铁 路轴承、振动值 Z4 以下低噪音轴 承、各类轴承的 P4 和 P2 级轴承、 风力发电机组轴承、航空轴承制造

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和加工中心轴承(加工中心具有三轴以上联动功能、定位重复精度为3-4µm),高速线材、板材轧机轴承(单途线材轧机轧速120m/s及以上、薄板轧机加工板厚度2mm及以上的支承和工作辊轴承),高速铁路轴承(行驶速度大于200km/h),振动值 Z4 以下低噪音轴承(Z4、Z4P、V4、V4P 噪音级),各类轴承的 P4、P2 级轴承,风力发电机组轴承(2 兆瓦以上风力发电机组主轴轴承、增速器轴承、发电机轴承等),航空轴承(航空发动机主轴轴承、起落架轴承、传动系统轴承、操纵系统轴承等)制造	levels of Z4, Z4P, V4, and V4P)"; "(axis bearings, accelerator bearings, generator bearings, etc. with wind power above 2 MW)"; "(aviation motor axis bearing, landing gear bearings, transmission bearings, and other control systems)"  ENCOURAGED	ENCOURAGED	ENCOURAGED
15. Manufacture of high-density,	114. Manufacture of high-density, high-precision, intricately-structured	114. Manufacture of high-density, high-precision, intricately-structured	114. Manufacture of high-density, high-precision, intricately-structured

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	1	t	1
powder metallurgy parts and chains	powder metallurgy parts and chains	powder metallurgy parts and chains	powder metallurgy parts and chains
for autos and engineering machinery	for autos and engineering machinery	for autos and engineering machinery	for autos and engineering machinery
15.高密度、高精度、形状复杂的粉	114.高密度、高精度、形状复杂的	114.高密度、高精度、形状复杂的	114.高密度、高精度、形状复杂的
末冶金零件及汽车、工程机械等用	粉末冶金零件及汽车、工程机械等	粉末冶金零件及汽车、工程机械等	粉末冶金零件及汽车、工程机械等
链条的制造	用链条的制造	用链条的制造	用链条的制造
ENCOURAGED  16. Manufacture of gear transmissions for wind power, nuclear power, high-speed trains, variable pulp marine gear transmission systems for ships and large, heavy-duty gear boxes  16.风电、高速列车用齿轮变速器,	ENCOURAGED 115. Manufacture of gear transmissions for wind power, nuclear power, high-speed trains, variable pulp marine gear transmission systems for ships and large, heavy-duty gear boxes 115.风电、高速列车用齿轮变速	ENCOURAGED  115. Manufacture of gear transmissions for wind power, nuclear power, high-speed trains, variable pulp marine gear transmission systems for ships and large, heavy-duty gear boxes  115.风电、高速列车用齿轮变速	ENCOURAGED 115. Manufacture of gear transmissions for wind power, nuclear power, high-speed trains, variable pulp marine gear transmission systems for ships and large, heavy-duty gear boxes 115.风电、高速列车用齿轮变速
船用可变桨齿轮传动系统,大型、	器,船用可变桨齿轮传动系统,大	器,船用可变桨齿轮传动系统,大	器,船用可变桨齿轮传动系统,大
重载齿轮箱的制造	型、重载齿轮箱的制造	型、重载齿轮箱的制造	型、重载齿轮箱的制造
ENCOURAGED 17. Manufacture of high heat- resistant insulation materials (including F and H classes) and insulation forming products 17.耐高温绝缘材料(绝缘等级为 F、H级)及绝缘成型件制造	ENCOURAGED 116. Manufacture of high heat- resistant insulation materials (including F and H classes) and insulation forming products 116.耐高温绝缘材料(绝缘等级为 F、H级)及绝缘成型件制造	ENCOURAGED 116. Manufacture of high heat- resistant insulation materials (including F and H classes) and insulation forming products 116.耐高温绝缘材料(绝缘等级为 F、H级)及绝缘成型件制造	ENCOURAGED 116. Manufacture of high heat- resistant insulation materials (including F and H classes) and insulation forming products 116.耐高温绝缘材料(绝缘等级为 F、H级)及绝缘成型件制造
ENCOURAGED  18. Development and manufacture of accumulator capsules, and rubber hydraulic and pneumatic seals  18. 蓄能器胶囊、液压气动用橡塑密	ENCOURAGED 117. Development and manufacture of accumulator capsules, and rubber hydraulic and pneumatic seals 117. 蓄能器胶囊、液压气动用橡塑	ENCOURAGED 117. Development and manufacture of accumulator capsules, and rubber hydraulic and pneumatic seals 117. 蓄能器胶囊、液压气动用橡塑	ENCOURAGED 117. Development and manufacture of accumulator capsules, and rubber hydraulic and pneumatic seals 117. 蓄能器胶囊、液压气动用橡塑
封件开发与制造	密封件开发与制造	密封件开发与制造	密封件开发与制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
19. Manufacture of high-precision,	118. Manufacture of high-precision,	118. Manufacture of high-precision,	118. Manufacture of high-precision,

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high-strength (above 12.9 level), profiled composite fasteners 19.高精度、高强度(12.9 级以上)、异形、组合类紧固件制造 ENCOURAGED 20. Manufacture of micro-precision parts transmissions link (clutches) 20.微型精密传动联结件(离合器)制造	high-strength (above 12.9 level), profiled composite fasteners 118.高精度、高强度(12.9 级以上)、异形、组合类紧固件制造 ENCOURAGED 119. Manufacture of micro-precision parts transmissions link (clutches) 119.微型精密传动联结件(离合器)制造	high-strength (above 12.9 level), profiled composite fasteners 118.高精度、高强度(12.9 级以上)、异形、组合类紧固件制造 ENCOURAGED 119. Manufacture of micro-precision parts transmissions link (clutches) 119.微型精密传动联结件(离合器)制造	high-strength (above 12.9 level), profiled composite fasteners 118.高精度、高强度(12.9 级以上)、异形、组合类紧固件制造 ENCOURAGED 119. Manufacture of micro-precision parts transmissions link (clutches) 119.微型精密传动联结件(离合器)制造
ENCOURAGED 21. Manufacture of large steel rolling mill connection shafts 21.大型轧机连接轴制造	ENCOURAGED 120. Manufacture of large steel rolling mill connection shafts 120.大型轧机连接轴制造	ENCOURAGED 120. Manufacture of large steel rolling mill connection shafts 120.大型轧机连接轴制造	ENCOURAGED 120. Manufacture of large steel rolling mill connection shafts 120.大型轧机连接轴制造
ENCOURAGED  22. Remanufacture of machinery and equipment such as machine tools, engineering machinery, railway locomotive equipment, and auto parts  22.机床、工程机械、铁路机车装备等机械设备再制造及汽车零部件再制造	and equipment such as machine tools, engineering machinery, railway locomotive equipment, and auto parts	ENCOURAGED 121. Machine tools, engineering machinery, railway locomotive equipment and other mechanical equipment remanufacturing, auto parts remanufacturing, remanufacturing of key components of medical imaging equipment, copiers and other office equipment remanufacturing 121. 机床、工程机械、铁路机车装备等机械设备再制造,汽车零部件再制造,医用成像设备关键部件再制造,复印机等办公设备再制造Revised from 2015 Catalogue: Added remanufacturing of key components of medical imaging	ENCOURAGED 121. Machine tools, engineering machinery, railway locomotive equipment and other mechanical equipment remanufacturing, auto parts remanufacturing, remanufacturing of key components of medical imaging equipment, copiers and other office equipment remanufacturing 121. 机床、工程机械、铁路机车装备等机械设备再制造,汽车零部件再制造,医用成像设备关键部件再制造,复印机等办公设备再制造Revised from 2015 Catalogue: Added remanufacturing of key components of medical imaging

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		equipment, copiers and other office	equipment, copiers and other office
		equipment remanufacturing	equipment remanufacturing
See Encouraged at (二十二)仪器仪表及文化、办公用机械制造业(22) instrumentation and culture, office machinery manufacturing industry 12. Manufacture of digital cameras of more than 10,000,000 pixels 12. 1000 万像素以上数字照相机制造	ENCOURAGED 122. Manufacture of digital cameras of more than 10,000,000 pixels 122.1000 万像素以上数字照相机制造 Not revised but recategorized into a different subsection	ENCOURAGED 122. Manufacture of digital cameras of more than 10,000,000 pixels 122.1000 万像素以上数字照相机制造	ENCOURAGED 122. Development and manufacture of digital camera and its optical lens and photoelectric modules over 10 million pixels or above horizontal field of view of 120 degrees or more. 122. 1000 万像素以上或水平视场角 120 度以上数字照相机及其光学镜头、光电模块的开发与制造 Revised from 2015 Catalogue and 2016 draft: Added optical lens and photoelectric modules, and digital cameras with a horizontal field of view of over120 degree.
above, photosensitive drum 13.办公机械制造:多功能一体化办 公设备(复印、打印、传真、扫	ENCOURAGED 123. Manufacture of office machinery: multifunctional office equipment (copy, print, fax, scan), color printing devices, high-resolution color printing head with precision of 2400dipi and above, photosensitive drum 123.办公机械制造:多功能一体化 办公设备(复印、打印、传真、扫 描),彩色打印设备,精度 2400dpi 及以上高分辨率彩色打印 机头,感光鼓 Not revised but recategorized into a different subsection	color printing head with precision of 2400dipi and above, photosensitive drum 123.办公机械制造:多功能一体化	ENCOURAGED 123. Manufacture of office machinery: multifunctional office equipment (copy, print, fax, scan), color printing devices, high-resolution color printing head with precision of 2400dipi and above, photosensitive drum 123.办公机械制造:多功能一体化 办公设备(复印、打印、传真、扫 描),彩色打印设备,精度 2400dpi 及以上高分辨率彩色打印 机头,感光鼓

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#### 机头,感光鼓 **ENCOURAGED ENCOURAGED ENCOURAGED** See Encouraged at (二十二)仪器 124. Manufacture of film machinery: 124. Manufacture of film machinery: 124. Manufacture of film machinery: 仪表及文化、办公用机械制造业 projector of 2K and 4K digital movies, projector of 2K and 4K digital movies, projector of 2K and 4K digital movies, (22) instrumentation and culture, cameras for digital movies, cameras for digital movies, cameras for digital movies, office machinery manufacturing production and editing devices for production and editing devices for production and editing devices for industry digital images and videos digital images and videos digital images and videos 14. Manufacture of film machinery: 124.电影机械制造: 2K、4K 数字电 124.电影机械制造: 2K、4K 数字电 124.电影机械制造: 2K、4K 数字电 projector of 2K and 4K digital movies, 影放映机,数字电影摄像机,数字 影放映机,数字电影摄像机,数字 影放映机,数字电影摄像机,数字 cameras for digital movies, production and editing devices for 影像制作、编辑设备 影像制作、编辑设备 影像制作、编辑设备 digital images and videos Not revised but recategorized into a 14.电影机械制造: 2K、4K 数字电 different subsection 影放映机,数字电影摄像机,数字 影像制作、编辑设备 (十八 )专用设备制造业 (18.) Specialized equipment manufacturing **ENCOURAGED**

# 1. Manufacture of trackless mining, loading, and transporting equipment for mines: mechanical-transmission, self-dumping mining trucks of 200 tons or more, mobile crushers, bucket excavators capable of excavating 5,000 m3/hour or more, mine loaders of 8 m3 or more, electric coal mining machinery above 2,500 kW

1.矿山无轨采、装、运设备制造: 200 吨及以上机械传动矿用自卸 车,移动式破碎机,5000立方米/

# **ENCOURAGED**

125. Manufacture of trackless mining, loading, and transporting equipment for mines: mechanical-transmission, self-dumping mining trucks of 200 tons or more, mobile crushers, bucket excavators capable of excavating 5,000 m3/hour or more, mine loaders of 8 m3 or more, electric coal mining machinery above 2.500 kW 125.矿山无轨采、装、运设备制 造:200 吨及以上机械传动矿用自

# **ENCOURAGED**

125. Manufacture of trackless mining, loading, and transporting equipment for mines: mechanical-transmission, self-dumping mining trucks of 200 tons or more, mobile crushers, bucket excavators capable of excavating 5,000 m3/hour or more, mine loaders of 8 m3 or more, electric coal mining machinery above 2.500 kW 125.矿山无轨采、装、运设备制 造:200吨及以上机械传动矿用自

# **ENCOURAGED**

125. Manufacture of trackless mining, loading, and transporting equipment for mines: mechanical-transmission, self-dumping mining trucks of 200 tons or more, mobile crushers, bucket excavators capable of excavating 5,000 m3/hour or more, mine loaders of 8 m3 or more, electric coal mining machinery above 2,500 kW 125.矿山无轨采、装、运设备制 造:200吨及以上机械传动矿用自 |卸车,移动式破碎机,5000立方米|卸车,移动式破碎机,5000立方米|卸车,移动式破碎机,5000立方米

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小时及以上斗轮挖掘机,8立方米及以上矿用装载机,2500千瓦以上电牵引采煤机设备等	/ 小时及以上斗轮挖掘机, 8 立方 米及以上矿用装载机, 2500 千瓦以 上电牵引采煤机设备等	/ 小时及以上斗轮挖掘机, 8 立方 米及以上矿用装载机, 2500 干瓦以 上电牵引采煤机设备等	/ 小时及以上斗轮挖掘机, 8 立方 米及以上矿用装载机, 2500 干瓦以 上电牵引采煤机设备等
ENCOURAGED  2. Manufacture of geological exploration and drilling machines: MEME earthquake detector, digital remote seismographs, digital imaging and measuring instruments for oil wells, drilling equipment and tools for horizontal and directional wells, and measurement-while-drilling (MWD) devices  2.物探、测井设备制造:MEME 地震检波器,数字遥测地震仪,数字成像、数控测井系统,水平井、定向井、钻机装置及器具,MWD 随钻测井仪	ENCOURAGED 126. Manufacture of geological exploration (not including gravitational or magnetic measuring) and drilling machines: MEME earthquake detector, digital remote seismographs, digital imaging and measuring instruments for oil wells, drilling equipment and tools for horizontal and directional wells, and measurement-while-drilling (MWD) devices 126.物探(不含重力、磁力测量)、测井设备制造:MEME 地震检波器,数字遥测地震仪,数字成像、数控测井系统,水平井、定向井、钻机装置及器具,MWD 随钻测井仪 Revised from 2011 Catalogue: Added "(not including gravitational or magnetic measuring)"	and drilling machines: MEME earthquake detector, digital remote seismographs, digital imaging and measuring instruments for oil wells, drilling equipment and tools for horizontal and directional wells, and measurement-while-drilling (MWD) devices  126.物探(不含重力、磁力测量)、测井设备制造:MEME 地震检波器,数字遥测地震仪,数字成像、数控测井系统,水平井、定向井、钻机装置及器具,MWD 随钻	ENCOURAGED 126. Manufacture of geological exploration (not including gravitational or magnetic measuring) and drilling machines: MEME earthquake detector, digital remote seismographs, digital imaging and measuring instruments for oil wells, drilling equipment and tools for horizontal and directional wells, and measurement-while-drilling (MWD) devices 126.物探(不含重力、磁力测量)、测井设备制造:MEME 地震检波器,数字遥测地震仪,数字成像、数控测井系统,水平井、定向井、钻机装置及器具,MWD 随钻测井仪
ENCOURAGED 3. Manufacture of equipment for oil exploration and development, drilling, and transportation: floating oil platforms and floating drilling-production systems with a working	ENCOURAGED 127. Manufacture of equipment for oil exploration and development, drilling, and transportation: floating oil platforms and floating drilling-production systems with a working	ENCOURAGED 127. Manufacture of equipment for oil exploration and development, drilling, and transportation: floating oil platforms and floating drilling-production systems with a working	ENCOURAGED 127. Manufacture of equipment for oil exploration and development, drilling, and transportation: floating oil platforms and floating drilling-production systems with a working

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water depth of deeper than 1500 meters, and complimentary sea-floor oil extraction and transportation equipment 3.石油勘探、钻井、集输设备制造:工作水深大于 1500 米的浮式钻井系统和浮式生产系统及配套海底采油、集输设备	water depth of deeper than 1500 meters, and complimentary sea-floor oil extraction and transportation equipment 127. 石油勘探、钻井、集输设备制造:工作水深大于 1500 米的浮式钻井系统和浮式生产系统及配套海底采油、集输设备	water depth of deeper than 1500 meters, and complimentary sea-floor oil extraction and transportation equipment 127. 石油勘探、钻井、集输设备制造:工作水深大于 1500 米的浮式钻井系统和浮式生产系统及配套海底采油、集输设备	water depth of deeper than 1500 meters, and complimentary sea-floor oil extraction and transportation equipment 127. 石油勘探、钻井、集输设备制造:工作水深大于 1500 米的浮式钻井系统和浮式生产系统及配套海底采油、集输设备
ENCOURAGED  4. Manufacture of large-caliber rotary drilling rig with a diameter of more than 2 meters and a depth of more than 30 meters; pipe jacking machines with a diameter of more than 1.2 meters; manufacture of large equipment sets for laying underground pipelines without digging with a pullback force of more than 300 tons; and manufacture of drills for constructing underground continuous walls and manufacture of vertical drilling systems (VDS)  4.口径 2 米以上深度 30 米以上大口	ENCOURAGED  128. Manufacture of large-caliber rotary drilling rig with a diameter of more than 2 meters and a depth of more than 30 meters; pipe jacking machines with a diameter of more than 1.2 meters; manufacture of large equipment sets for laying underground pipelines without digging with a pullback force of more than 300 tons; and manufacture of drills for constructing underground continuous walls and manufacture of vertical drilling systems (VDS)  128.口径 2 米以上深度 30 米以上大	ENCOURAGED  128. Manufacture of large-caliber rotary drilling rig with a diameter of more than 2 meters and a depth of more than 30 meters; pipe jacking machines with a diameter of more than 1.2 meters; manufacture of large equipment sets for laying underground pipelines without digging with a pullback force of more than 300 tons; and manufacture of drills for constructing underground continuous walls and manufacture of vertical drilling systems (VDS)  128.口径 2 米以上深度 30 米以上大	ENCOURAGED  128. Manufacture of large-caliber rotary drilling rig with a diameter of more than 2 meters and a depth of more than 30 meters; pipe jacking machines with a diameter of more than 1.2 meters; manufacture of large equipment sets for laying underground pipelines without digging with a pullback force of more than 300 tons; and manufacture of drills for constructing underground continuous walls and manufacture of vertical drilling systems (VDS)  128.口径 2 米以上深度 30 米以上大
径旋挖钻机、直径 1.2 米以上顶管机、回拖力 300 吨以上大型非开挖铺设地下管线成套设备、地下连续墙施工钻机制造	口径旋挖钻机、直径 1.2 米以上顶管机、回拖力 300 吨以上大型非开挖铺设地下管线成套设备、地下连续墙施工钻机制造	口径旋挖钻机、直径 1.2 米以上顶管机、回拖力 300 吨以上大型非开挖铺设地下管线成套设备、地下连续墙施工钻机制造	口径旋挖钻机、直径 1.2 米以上顶管机、回拖力 300 吨以上大型非开挖铺设地下管线成套设备、地下连续墙施工钻机制造
ENCOURAGED 5. Design and manufacture of large bulldozers with 520 horsepower or	ENCOURAGED 129. Design and manufacture of large bulldozers with 520 horsepower or	ENCOURAGED 129. Design and manufacture of large bulldozers with 520 horsepower or	ENCOURAGED 129. Design and manufacture of large bulldozers with 520 horsepower or

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more	more	more	more
5.520 马力及以上大型推土机设计	129. 520 马力及以上大型推土机设	129. 520 马力及以上大型推土机设	129. 520 马力及以上大型推土机设
与制造	计与制造	计与制造	计与制造
ENCOURAGED 6. Design and manufacture of silt-cleaning machinery with capacity of 100 m3/hour or more and dredging devices for dredging vessels that are 1,000 tons or more 6.100 立方米/小时及以上规格的清淤机、1000 吨及以上挖泥船的挖泥装置设计与制造	ENCOURAGED 130. Design and manufacture of silt-cleaning machinery with capacity of 100 m3/hour or more and dredging devices for dredging vessels that are 1,000 tons or more 130. 100 立方米/小时及以上规格的清淤机、1000 吨及以上挖泥船的挖泥装置设计与制造	ENCOURAGED 130. Design and manufacture of silt-cleaning machinery with capacity of 100 m3/hour or more and dredging devices for dredging vessels that are 1,000 tons or more 130. 100 立方米/小时及以上规格的清淤机、1000 吨及以上挖泥船的挖泥装置设计与制造	ENCOURAGED 130. Design and manufacture of silt-cleaning machinery with capacity of 100 m3/hour or more and dredging devices for dredging vessels that are 1,000 tons or more 130. 100 立方米/小时及以上规格的清淤机、1000 吨及以上挖泥船的挖泥装置设计与制造
ENCOURAGED 7. Design and manufacture of special equipment for impervious concrete walls used for flood control and emergency rescue 7.防汛堤坝用混凝土防渗墙施工装备设计与制造	ENCOURAGED 131. Design and manufacture of special equipment for impervious concrete walls used for flood control and emergency rescue 131.防汛堤坝用混凝土防渗墙施工装备设计与制造	ENCOURAGED 131. Design and manufacture of special equipment for impervious concrete walls used for flood control and emergency rescue 131.防汛堤坝用混凝土防渗墙施工装备设计与制造	ENCOURAGED 131. Design and manufacture of special equipment for impervious concrete walls used for flood control and emergency rescue 131.防汛堤坝用混凝土防渗墙施工装备设计与制造
ENCOURAGED  8. Manufacture of underwater earth/rock construction machinery: underwater bulldozers, loaders, and excavators that can operate at water depths of deeper than 9 m  8.水下土石方施工机械制造:水深		ENCOURAGED 132. Manufacture of underwater earth/rock construction machinery: underwater bulldozers, loaders, and excavators that can operate at water depths of deeper than 9 m 132.水下土石方施工机械制造:水	ENCOURAGED 132. Manufacture of underwater earth/rock construction machinery: underwater bulldozers, loaders, and excavators that can operate at water depths of deeper than 9 m 132.水下土石方施工机械制造:水
9 米以下推土机、装载机、挖掘机	深9米以下推土机、装载机、挖掘	深9米以下推土机、装载机、挖掘	深9米以下推土机、装载机、挖掘
等 ————————————————————————————————————	机等 	机等	机等
ENCOURAGED  9. Manufacture of equipment for	ENCOURAGED 133. Manufacture of equipment for	ENCOURAGED 133. Manufacture of equipment for	ENCOURAGED 133. Manufacture of equipment for

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12. (沥青)油毡瓦设备、镀锌钢板等金属屋顶生产设备制造	136. (沥青)油毡瓦设备、镀锌钢板等金属屋顶生产设备制造	136. (沥青)油毡瓦设备、镀锌钢板等金属屋顶生产设备制造	136. (沥青)油毡瓦设备、镀锌钢板等金属屋顶生产设备制造
ENCOURAGED  12. Manufacture of asphalt shingle equipment, zinc-plated steel, and other metal rooftop production equipment	ENCOURAGED  136. Manufacture of asphalt shingle equipment, zinc-plated steel, and other metal rooftop production equipment	ENCOURAGED  136. Manufacture of asphalt shingle equipment, zinc-plated steel, and other metal rooftop production equipment	ENCOURAGED  136. Manufacture of asphalt shingle equipment, zinc-plated steel, and other metal rooftop production equipment
造	造	造	造
测设备及其关键零部件的设计与制	测设备及其关键零部件的设计与制	测设备及其关键零部件的设计与制	测设备及其关键零部件的设计与制
梁、隧道维修养护机械和检查、监	梁、隧道维修养护机械和检查、监	梁、隧道维修养护机械和检查、监	梁、隧道维修养护机械和检查、监
和救助系统设备制造 ENCOURAGED 11. Design and manufacture of equipment and key components for large-scale railroad construction, railway lines, bridges, tunnel repair, machinery maintenance and inspection, and monitoring 11.铁路大型施工、铁路线路、桥	灾和救助系统设备制造 ENCOURAGED 135. Design and manufacture of equipment and key components for large-scale railroad construction, railway lines, bridges, tunnel repair, machinery maintenance and inspection, and monitoring 135.铁路大型施工、铁路线路、桥	文和救助系统设备制造 ENCOURAGED 135. Design and manufacture of equipment and key components for large-scale railroad construction, railway lines, bridges, tunnel repair, machinery maintenance and inspection, and monitoring 135.铁路大型施工、铁路线路、桥	文和救助系统设备制造 ENCOURAGED 135. Design and manufacture of equipment and key components for large-scale railroad construction, railway lines, bridges, tunnel repair, machinery maintenance and inspection, and monitoring 135.铁路大型施工、铁路线路、桥
ENCOURAGED 10. Manufacture of equipment for road and tunnel monitoring, ventilation, disaster prevention, and rescue systems 10.公路隧道营运监控、通风、防灾	ENCOURAGED 134. Manufacture of equipment for road and tunnel monitoring, ventilation, disaster prevention, and rescue systems 134.公路隧道营运监控、通风、防	ENCOURAGED 134. Manufacture of equipment for road and tunnel monitoring, ventilation, disaster prevention, and rescue systems 134.公路隧道营运监控、通风、防	ENCOURAGED 134. Manufacture of equipment for road and tunnel monitoring, ventilation, disaster prevention, and rescue systems 134.公路隧道营运监控、通风、防
road and bridge maintenance and automatic detection 9.公路桥梁养护、自动检测设备制造	road and bridge maintenance and automatic detection 133. 公路桥梁养护、自动检测设备制造	road and bridge maintenance and automatic detection 133. 公路桥梁养护、自动检测设备制造	road and bridge maintenance and automatic detection 133. 公路桥梁养护、自动检测设备 制造
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	I		
ENCOURAGED		ENCOURAGED	ENCOURAGED
13. Manufacture of eco-friendly, onsite waterproof polyurethane	137. Manufacture of eco-friendly, onsite waterproof polyurethane	137. Manufacture of eco-friendly,	137. Manufacture of eco-friendly,
insulation systems; polyurethane		onsite waterproof polyurethane insulation systems; polyurethane	onsite waterproof polyurethane insulation systems; polyurethane
cementing preparation techniques	cementing preparation techniques	cementing preparation techniques	cementing preparation techniques
and equipment for polyurethane	and equipment for polyurethane	and equipment for polyurethane	and equipment for polyurethane
sealants; and preparation techniques	sealants; and preparation techniques	sealants; and preparation techniques	sealants; and preparation techniques
and production equipment for	and production equipment for	and production equipment for	and production equipment for
modified silicone sealants	modified silicone sealants	modified silicone sealants	modified silicone sealants
13.环保节能型现场喷涂聚氨酯防水	137.环保节能型现场喷涂聚氨酯防	137.环保节能型现场喷涂聚氨酯防	137.环保节能型现场喷涂聚氨酯防
保温系统设备、聚氨酯密封膏配制	水保温系统设备、聚氨酯密封膏配	水保温系统设备、聚氨酯密封膏配	水保温系统设备、聚氨酯密封膏配
技术与设备、改性硅酮密封膏配制	制技术与设备、改性硅酮密封膏配	制技术与设备、改性硅酮密封膏配	制技术与设备、改性硅酮密封膏配
技术和生产设备制造	制技术和生产设备制造	制技术和生产设备制造	制技术和生产设备制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
14. Design and manufacture of high-	138. Design and manufacture of high-	138. Design and manufacture of high-	138. Design and manufacture of high-
precision strip roller (precision	precision strip roller (precision	precision strip roller (precision	precision strip roller (precision
thickness of 10 microns)	thickness of 10 microns)	thickness of 10 microns)	thickness of 10 microns)
14.高精度带材轧机(厚度精度 10	138.高精度带材轧机(厚度精度 10	138.高精度带材轧机(厚度精度 10	138.高精度带材轧机(厚度精度 10
微米)设计与制造	微米)设计与制造	微米)设计与制造	微米)设计与制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
15. Manufacture of mineral ore	139. Manufacture of mineral ore	139. Manufacture of mineral ore	139. Manufacture of mineral ore
separation system for multiple	separation system for multiple	separation system for multiple	separation system for multiple
elements, fine grains, and metal ores	elements, fine grains, and metal ores	elements, fine grains, and metal ores	elements, fine grains, and metal ores
that are difficult to smelt	that are difficult to smelt	that are difficult to smelt	that are difficult to smelt
15.多元素、细颗粒、难选冶金属矿	139.多元素、细颗粒、难选冶金属	139.多元素、细颗粒、难选冶金属	139.多元素、细颗粒、难选冶金属
产的选矿装置制造	矿产的选矿装置制造	矿产的选矿装置制造	矿产的选矿装置制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
16. Manufacture of key equipment	140. Manufacture of key equipment	140. Manufacture of key equipment	140. Manufacture of key equipment
within the complete ethylene	within the complete ethylene	within the complete ethylene	within the complete ethylene
production equipment set that has an			production equipment set that has an
annual capacity of 1 million tons or	annual capacity of 1 million tons or	annual capacity of 1 million tons or	annual capacity of 1 million tons or

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more: mixed granulators with an annual processing capacity of more than 400,000 tons, spiral centrifuges with a diameter of 1,000 mm or more, and low-flow lift pumps 16.100 万吨/年及以上乙烯成套设备中的关键设备制造:年处理能力40 万吨以上混合造粒机,直径1000 毫米及以上螺旋卸料离心机,小流量高扬程离心泵	more: mixed granulators with an annual processing capacity of more than 400,000 tons, spiral centrifuges with a diameter of 1,000 mm or more, and low-flow lift pumps 140.100 万吨/年及以上乙烯成套设备中的关键设备制造:年处理能力40 万吨以上混合造粒机,直径1000 毫米及以上螺旋卸料离心机,小流量高扬程离心泵	more: mixed granulators with an annual processing capacity of more than 400,000 tons, spiral centrifuges with a diameter of 1,000 mm or more, and low-flow lift pumps 140.100 万吨/年及以上乙烯成套设备中的关键设备制造:年处理能力40 万吨以上混合造粒机,直径1000 毫米及以上螺旋卸料离心机,小流量高扬程离心泵	more: mixed granulators with an annual processing capacity of more than 400,000 tons, spiral centrifuges with a diameter of 1,000 mm or more, and low-flow lift pumps 140.100 万吨/年及以上乙烯成套设备中的关键设备制造:年处理能力40 万吨以上混合造粒机,直径1000 毫米及以上螺旋卸料离心机,小流量高扬程离心泵
ENCOURAGED  17. Manufacture of large-scale coal chemical industrial equipment sets (limited to CJVs and EJVs)  17.大型煤化工成套设备制造(限于合资、合作)	Deleted		
ENCOURAGED  18. Design and manufacture of metal dies (such as copper, aluminum, titanium, or zirconium pipes and rods)  18.金属制品模具(铜、铝、钛、锆的管、棒、型材挤压模具)设计、制造	ENCOURAGED 141. Design and manufacture of metal dies (such as copper, aluminum, titanium, or zirconium pipes and rods) 141.金属制品模具(铜、铝、钛、 锆的管、棒、型材挤压模具)设 计、制造	ENCOURAGED 141. Design and manufacture of metal dies (such as copper, aluminum, titanium, or zirconium pipes and rods) 141.金属制品模具(铜、铝、钛、锆的管、棒、型材挤压模具)设计、制造	ENCOURAGED 141. Design and manufacture of metal dies (such as copper, aluminum, titanium, or zirconium pipes and rods) 141.金属制品模具(铜、铝、钛、 锆的管、棒、型材挤压模具)设 计、制造
ENCOURAGED  19. Design and manufacture of stamping dies for auto body exterior panels and gauges; large injection molds for auto instrument panels and bumpers; and clamp and inspection tools for autos and motorcycles	ENCOURAGED 142. Design and manufacture of stamping dies for auto body exterior panels and gauges; large injection molds for auto instrument panels and bumpers; and clamp and inspection tools for autos and motorcycles	ENCOURAGED 142. Design and manufacture of stamping dies for auto body exterior panels and gauges; large injection molds for auto instrument panels and bumpers; and clamp and inspection tools for autos and motorcycles	ENCOURAGED 142. Design and manufacture of stamping dies for auto body exterior panels and gauges; large injection molds for auto instrument panels and bumpers; and clamp and inspection tools for autos and motorcycles

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19.汽车车身外覆盖件冲压模具,汽车仪表板、保险杠等大型注塑模具,汽车及摩托车夹具、检具设计与制造	142.汽车车身外覆盖件冲压模具, 汽车仪表板、保险杠等大型注塑模 具,汽车及摩托车夹具、检具设计 与制造	142.汽车车身外覆盖件冲压模具, 汽车仪表板、保险杠等大型注塑模 具,汽车及摩托车夹具、检具设计 与制造	142.汽车车身外覆盖件冲压模具, 汽车仪表板、保险杠等大型注塑模 具,汽车及摩托车夹具、检具设计 与制造
ENCOURAGED 20. Design and manufacture of special production equipment for car batteries 20.汽车动力电池专用生产设备的设计与制造	ENCOURAGED 143. Design and manufacture of special production equipment for car batteries 143. 汽车动力电池专用生产设备的 设计与制造	ENCOURAGED 143. Design and manufacture of special production equipment for car batteries 143. 汽车动力电池专用生产设备的 设计与制造	ENCOURAGED 143. Design and manufacture of special production equipment for car batteries 143. 汽车动力电池专用生产设备的 设计与制造
ENCOURAGED 21. Design and manufacture of precision stamping dies with a precision higher than 0.02 mm, precision cavity molds with a precision higher than 0.05 mm 21.精密模具(冲压模具精度高于0.02 毫米、型腔模具精度高于0.05	ENCOURAGED  144. Design and manufacture of precision stamping dies with a precision higher than 0.02 mm, precision cavity molds with a precision higher than 0.05 mm  144. 精密模具(冲压模具精度高于 0.02 毫米、型腔模具精度高于 0.05 毫米)设计与制造	ENCOURAGED  144. Design and manufacture of precision stamping dies with a precision higher than 0.02 mm, precision cavity molds with a precision higher than 0.05 mm  144. 精密模具(冲压模具精度高于 0.02 毫米、型腔模具精度高于 0.05 毫米)设计与制造	ENCOURAGED 144. Design and manufacture of precision stamping dies with a precision higher than 0.02 mm, precision cavity molds with a precision higher than 0.05 mm 144. 精密模具(冲压模具精度高于 0.05 毫米、型腔模具精度高于 0.05
ENCOURAGED 22. Design and manufacture of nonmetal dies 22.非金属制品模具设计与制造	ENCOURAGED 145. Design and manufacture of nonmetal dies 145. 非金属制品模具设计与制造	ENCOURAGED 145. Design and manufacture of nonmetal dies 145. 非金属制品模具设计与制造	ENCOURAGED 145. Design and manufacture of nonmetal dies 145. 非金属制品模具设计与制造
ENCOURAGED 23. Manufacture of beer canning and packaging equipment with a capacity of 60,000 bottles/hour and above; lukewarm and hot beverage canning and packaging equipment with a capacity of 50,000 bottles/hour and	ENCOURAGED  146. Manufacture of beer canning and packaging equipment with a capacity of 60,000 bottles/hour and above; lukewarm and hot beverage canning and packaging equipment with a capacity of 50,000	ENCOURAGED  146. Manufacture of beer canning and packaging equipment with a capacity of 60,000 bottles/hour and above; lukewarm and hot beverage canning and packaging equipment with a capacity of 50,000	ENCOURAGED 146. Manufacture of beer canning and packaging equipment with a capacity of 60,000 bottles/hour and above; lukewarm and hot beverage canning and packaging equipment with a capacity of 50,000

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above; and sterile canning and packaging equipment with a capacity of 36,000 bottles/hour and above 23.6 万瓶/小时及以上啤酒灌装设备、5 万瓶/小时及以上饮料中温及热灌装设备、3.6 万瓶/小时及以上	bottles/hour and above; and sterile canning and packaging equipment with a capacity of 36,000 bottles/hour and above 146.6 万瓶/小时及以上啤酒灌装设备、5 万瓶/小时及以上饮料中温及热灌装设备、3.6 万瓶/小时及以上	bottles/hour and above; and sterile canning and packaging equipment with a capacity of 36,000 bottles/hour and above 146.6 万瓶/小时及以上啤酒灌装设备、5 万瓶/小时及以上饮料中温及热灌装设备、3.6 万瓶/小时及以上	bottles/hour and above; and sterile canning and packaging equipment with a capacity of 36,000 bottles/hour and above 146.6 万瓶/小时及以上啤酒灌装设备、5 万瓶/小时及以上饮料中温及热灌装设备、3.6 万瓶/小时及以上
ENCOURAGED 24. Manufacture of production technology and key equipment for amino acids, enzyme preparation, and food additives 24.氨基酸、酶制剂、食品添加剂等 生产技术及关键设备制造	ENCOURAGED 147. Manufacture of production technology and key equipment for amino acids, enzyme preparation, and food additives 147.氨基酸、酶制剂、食品添加剂 等生产技术及关键设备制造	ENCOURAGED 147. Manufacture of production technology and key equipment for amino acids, enzyme preparation, and food additives 147.氨基酸、酶制剂、食品添加剂 等生产技术及关键设备制造	ENCOURAGED 147. Manufacture of production technology and key equipment for amino acids, enzyme preparation, and food additives 147.氨基酸、酶制剂、食品添加剂 等生产技术及关键设备制造
ENCOURAGED 25. Manufacture of sets of and key parts for feed-processing equipment with a processing capacity of 10 tons/hour or more 25.10 吨/小时及以上的饲料加工成套设备及关键部件制造	ENCOURAGED 148. Manufacture of sets of and key parts for feed-processing equipment with a processing capacity of 10 tons/hour or more 148.10 吨/小时及以上的饲料加工成套设备及关键部件制造	ENCOURAGED  148. Manufacture of sets of and key parts for feed-processing equipment with a processing capacity of 10 tons/hour or more  148.10 吨/小时及以上的饲料加工 成套设备及关键部件制造	ENCOURAGED 148. Manufacture of sets of and key parts for feed-processing equipment with a processing capacity of 10 tons/hour or more 148.10 吨/小时及以上的饲料加工成套设备及关键部件制造
ENCOURAGED 26. Manufacture of light corrugated cardboard and packaging where the thickness of an edge is 0.75 mm or thinner 26.楞高 0.75 毫米及以下的轻型瓦楞纸板及纸箱设备制造	ENCOURAGED 149. Manufacture of light corrugated cardboard and packaging where the thickness of an edge is 0.75 mm or thinner 149.楞高 0.75 毫米及以下的轻型瓦楞纸板及纸箱设备制造	ENCOURAGED 149. Manufacture of light corrugated cardboard and packaging where the thickness of an edge is 0.75 mm or thinner 149.楞高 0.75 毫米及以下的轻型瓦楞纸板及纸箱设备制造	ENCOURAGED 149. Manufacture of light corrugated cardboard and packaging where the thickness of an edge is 0.75 mm or thinner 149.楞高 0.75 毫米及以下的轻型瓦楞纸板及纸箱设备制造

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# **ENCOURAGED**

27. Manufacture of multi-color, sheet-fed offset lithographic printing presses (width ≥ 750 mm, printing speed: ≥16,000 sheets/hour of multi-color, single side; ≥13,000 sheets/hour of multi-color double sides)

27.单张纸多色胶印机(幅宽≥750 毫米,印刷速度:单面多色≥16000 张/小时,双面多色≥13000 张/小 时)制造

#### **ENCOURAGED**

28. Manufacture of single-sheet, single-track web lithographic printing presses with a printing speed of more than 75,000 sheets/hour (paper size 787 mm x 880 mm), double-sheet, single-track web lithographic printing presses with a printing speed of more than 170,000 sheets/hour (paper size 787 mm x 880 mm), and commercial web lithographic printing presses with a printing speed of more than 50,000 sheets/hour (paper size 787 mm x 880 mm)

28.单幅单纸路卷筒纸平版印刷机印刷速度大于 75000 对开张/小时(787×880 毫米)、双幅单纸路卷筒纸平版印刷机印刷速度大于170000 对开张/小时(787×880 毫

# **ENCOURAGED**

150. Manufacture of multi-color, sheet-fed offset lithographic printing presses (width ≥ 750 mm, printing speed: ≥16,000 sheets/hour of multi-color, single side; ≥13,000 sheets/hour of multi-color double sides)

150.单张纸多色胶印机(幅宽≥750 毫米,印刷速度:单面多色≥16000 张/小时,双面多色≥13000张/小时)制造

# **ENCOURAGED**

151. Manufacture of single-sheet, single-track web lithographic printing presses with a printing speed of more than 75,000 sheets/hour (paper size 787 mm x 880 mm), double-sheet, single-track web lithographic printing presses with a printing speed of more than 170,000 sheets/hour (paper size 787 mm x 880 mm), and commercial web lithographic printing presses with a printing speed of more than 50,000 sheets/hour (paper size 787 mm x 880 mm) 151.单幅单纸路卷筒纸平版印刷机 印刷速度大于 75000 对开张/小时 (787×880毫米)、双幅单纸路卷 筒纸平版印刷机印刷速度大于

170000 对开张/小时(787×880 毫

# **ENCOURAGED**

150. Manufacture of multi-color, sheet-fed offset lithographic printing presses (width ≥ 750 mm, printing speed: ≥16,000 sheets/hour of multi-color, single side; ≥13,000 sheets/hour of multi-color double sides)

150.单张纸多色胶印机(幅宽≥750 毫米,印刷速度:单面多色≥16000 张/小时,双面多色≥13000张/小时)制造

# **ENCOURAGED**

151. Manufacture of single-sheet, single-track web lithographic printing presses with a printing speed of more than 75,000 sheets/hour (paper size 787 mm x 880 mm), double-sheet, single-track web lithographic printing presses with a printing speed of more than 170,000 sheets/hour (paper size 787 mm x 880 mm), and commercial web lithographic printing presses with a printing speed of more than 50,000 sheets/hour (paper size 787 mm x 880 mm)

151.单幅单纸路卷筒纸平版印刷机印刷速度大于75000对开张/小时(787×880毫米)、双幅单纸路卷筒纸平版印刷机印刷速度大于170000对开张/小时(787×880毫

# **ENCOURAGED**

150. Manufacture of multi-color, sheet-fed offset lithographic printing presses (width ≥ 750 mm, printing speed: ≥16,000 sheets/hour of multi-color, single side; ≥13,000 sheets/hour of multi-color double sides)

150.单张纸多色胶印机(幅宽≥750 毫米,印刷速度:单面多色≥16000 张/小时,双面多色≥13000张/小时)制造

# **ENCOURAGED**

151. Manufacture of single-sheet, single-track web lithographic printing presses with a printing speed of more than 75,000 sheets/hour (paper size 787 mm x 880 mm), double-sheet, single-track web lithographic printing presses with a printing speed of more than 170,000 sheets/hour (paper size 787 mm x 880 mm), and commercial web lithographic printing presses with a printing speed of more than 50,000 sheets/hour (paper size 787 mm x 880 mm)

151 单幅单年8条管年平版印刷机

151.单幅单纸路卷筒纸平版印刷机印刷速度大于75000对开张/小时(787×880毫米)、双幅单纸路卷筒纸平版印刷机印刷速度大于170000对开张/小时(787×880毫

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米)、商业卷筒纸平版印刷机印刷	  米)、商业卷筒纸平版印刷机印刷	米)、商业卷筒纸平版印刷机印刷	*************************************
速度大于 50000 对开张/小时	速度大于 50000 对开张/小时	速度大于 50000 对开张/小时	速度大于 50000 对开张/小时
(787×880 毫米)制造	(787×880 毫米)制造	(787×880毫米)制造`	(787×880毫米)制造`
ENCOURAGED 29. Manufacture of multi-color, wide flexographic printing presses (printing width ≥ 1300mm, printing speed ≥350m/s), inkjet digital printing machine (for publications: printing speed≥ 150m/min, definition ≥ 600dpi; for packaging: printing speed ≥ 30m/min, definition ≥1000dpi; for variable data: printing speed ≥ 100m/min or more, definition ≥ 300dpi) 29.多色宽幅柔性版印刷机(印刷宽度≥1300 毫米,印刷速度≥350 米/秒),喷墨数字印刷机(出版用:印刷速度≥150 米/分,分辨率 ≥600dpi;包装用:印刷速度≥30 米	宽度≥1300 毫米,印刷速度≥350 米/秒),喷墨数字印刷机(出版用:印刷速度≥150 米/分,分辨率≥600dpi;包装用:印刷速度≥30 米		/秒),喷墨数字印刷机(出版用: 印刷速度≥150米/分,分辨率 ≥600dpi;包装用:印刷速度≥30米
/分,分辨率≥1000dpi;可变数据	/分,分辨率≥1000dpi;可变数据	/分,分辨率≥1000dpi;可变数据	/分,分辨率≥1000dpi;可变数据
用:印刷速度≥100米/分,分辨率	用:印刷速度≥100米/分,分辨率	用:印刷速度≥100米/分,分辨率	用:印刷速度≥100米/分,分辨率
≥300dpi ) 制造	≥300dpi ) 制造	≥300dpi ) 制造	≥300dpi ) 制造
ENCOURAGED 30. Manufacture of systems for presetting computer ink, remote control of ink colors, speed tracking of liquid ink, and automated monitoring and tracking of print quality, shaftless conveyor	ENCOURAGED 153. Manufacture of systems for presetting computer ink, remote control of ink colors, speed tracking of liquid ink, and automated monitoring and tracking of print quality, shaftless conveyor	ENCOURAGED 153. Manufacture of systems for presetting computer ink, remote control of ink colors, speed tracking of liquid ink, and automated monitoring and tracking of print quality, shaftless conveyor	ENCOURAGED 153. Manufacture of systems for presetting computer ink, remote control of ink colors, speed tracking of liquid ink, and automated monitoring and tracking of print quality, shaftless conveyor

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			,
technology, high-speed automated paper splicers with a speed of 75,000 sheets/hour, paper feeders and high-speed folding machines that supply paper and automatically control and remotely adjust the process, automated overprinting systems, cooling devices, silicon-added systems, and polarization-adjustment devices  30.计算机墨色预调、墨色遥控、水墨速度跟踪、印品质量自动检测和跟踪系统、无轴传动技术、速度在75000 张/小时的高速自动接纸机、给纸机和可以自动遥控调节的高速折页机、自动套印系统、冷却装	technology, high-speed automated paper splicers with a speed of 75,000 sheets/hour, paper feeders and high-speed folding machines that supply paper and automatically control and remotely adjust the process, automated overprinting systems, cooling devices, silicon-added systems, and polarization-adjustment devices  153.计算机墨色预调、墨色遥控、水墨速度跟踪、印品质量自动检测和跟踪系统、无轴传动技术、速度在75000张/小时的高速自动接纸机、给纸机和可以自动遥控调节的高速折页机、自动套印系统、冷却	technology, high-speed automated paper splicers with a speed of 75,000 sheets/hour, paper feeders and high-speed folding machines that supply paper and automatically control and remotely adjust the process, automated overprinting systems, cooling devices, silicon-added systems, and polarization-adjustment devices  153.计算机墨色预调、墨色遥控、水墨速度跟踪、印品质量自动检测和跟踪系统、无轴传动技术、速度在75000张/小时的高速自动接纸机、给纸机和可以自动遥控调节的高速折页机、自动套印系统、冷却	technology, high-speed automated paper splicers with a speed of 75,000 sheets/hour, paper feeders and high-speed folding machines that supply paper and automatically control and remotely adjust the process, automated overprinting systems, cooling devices, silicon-added systems, and polarization-adjustment devices  153.计算机墨色预调、墨色遥控、水墨速度跟踪、印品质量自动检测和跟踪系统、无轴传动技术、速度在75000张/小时的高速自动接纸机、给纸机和可以自动遥控调节的高速折页机、自动套印系统、冷却
置、加硅系统、调偏装置等制造	装置、加硅系统、调偏装置等制造	装置、加硅系统、调偏装置等制造	装置、加硅系统、调偏装置等制造
ENCOURAGED 31. Manufacture of automatic coating electronic gun 31.电子枪自动镀膜机制造	ENCOURAGED 154. Manufacture of automatic coating electronic gun 154.电子枪自动镀膜机制造	ENCOURAGED 154. Manufacture of automatic coating electronic gun 154.电子枪自动镀膜机制造	ENCOURAGED 154. Manufacture of automatic coating electronic gun 154.电子枪自动镀膜机制造
ENCOURAGED 32. Manufacture of deep-processing technology and related equipment for flat-plate glass 32.平板玻璃深加工技术及设备制造	ENCOURAGED 155. Manufacture of deep-processing technology and related equipment for flat-plate glass 155. 平板玻璃深加工技术及设备制 造	ENCOURAGED 155. Manufacture of deep-processing technology and related equipment for flat-plate glass 155. 平板玻璃深加工技术及设备制 造	ENCOURAGED 155. Manufacture of deep-processing technology and related equipment for flat-plate glass 155. 平板玻璃深加工技术及设备制 造
ENCOURAGED  33. Manufacture of complete sets of new paper (including pulp) machinery	ENCOURAGED  156. Manufacture of complete sets of new paper (including pulp) machinery  tion by the US Ching Rusiness Council to	new paper (including pulp) machinery	ENCOURAGED 156. Manufacture of complete sets of new paper (including pulp) machinery

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33.新型造纸机械(含纸浆)等成套设备制造	156. 新型造纸机械(含纸浆)等成套设备制造	156. 新型造纸机械(含纸浆)等成套设备制造	156. 新型造纸机械(含纸浆)等成 套设备制造
ENCOURAGED 34. Manufacture of leather-finishing equipment based on new technology 34.皮革后整饰新技术设备制造	ENCOURAGED 157. Manufacture of leather-finishing equipment based on new technology 157. 皮革后整饰新技术设备制造	ENCOURAGED 157. Manufacture of leather-finishing equipment based on new technology 157. 皮革后整饰新技术设备制造	ENCOURAGED 157. Manufacture of leather-finishing equipment based on new technology 157. 皮革后整饰新技术设备制造
ENCOURAGED  35. Development and manufacture of new equipment for processing and storage of agricultural goods: equipment for preserving freshness and for sorting, packing, and processing grains, vegetable oils, vegetables, dried and fresh fruits, meat and aquatic products, and other foods; produce-quality inspection and monitoring equipment; inspection and monitoring equipment for agricultural products; rheometers; farinographs; extra-fine powder muller, high-efficiency dehydration equipment; efficient fruit juice concentration equipment (efficiency level above 5); equipment for disinfection of powder food; bacteria-free solid and semi-solid food packaging equipment, and disc centrifuges	ENCOURAGED  158. Development and manufacture of new equipment for processing and storage of agricultural goods: equipment for preserving freshness and for sorting, packing, and processing grains, vegetable oils, vegetables, dried and fresh fruits, meat and aquatic products, and other foods; produce-quality inspection and monitoring equipment; inspection and monitoring equipment for agricultural products; rheometers; farinographs; extra-fine powder muller, high-efficiency dehydration equipment; efficient fruit juice concentration equipment (efficiency level above 5); equipment for disinfection of powder food; bacteria-free solid and semi-solid food packaging equipment, and disc centrifuges	ENCOURAGED  158. Development and manufacture of new equipment for processing and storage of agricultural goods: equipment for preserving freshness and for sorting, packing, and processing grains, vegetable oils, vegetables, dried and fresh fruits, meat and aquatic products, and other foods; produce-quality inspection and monitoring equipment; inspection and monitoring equipment for agricultural products; rheometers; farinographs; extra-fine powder muller, high-efficiency dehydration equipment; efficient fruit juice concentration equipment (efficiency level above 5); equipment for disinfection of powder food; bacteria-free solid and semi-solid food packaging equipment, and disc centrifuges	ENCOURAGED  158. Development and manufacture of new equipment for processing and storage of agricultural goods: equipment for preserving freshness and for sorting, packing, and processing grains, vegetable oils, vegetables, dried and fresh fruits, meat and aquatic products, and other foods; produce-quality inspection and monitoring equipment; inspection and monitoring equipment for agricultural products; rheometers; farinographs; extra-fine powder muller, high-efficiency dehydration equipment; efficient fruit juice concentration equipment (efficiency level above 5); equipment for disinfection of powder food; bacteria-free solid and semi-solid food packaging equipment, and disc centrifuges
35.农产品加工及储藏新设备开发与制造:粮食、油料、蔬菜、干鲜果	158.农产品加工及储藏新设备开发与制造:粮食、油料、蔬菜、干鲜	158.农产品加工及储藏新设备开发与制造:粮食、油料、蔬菜、干鲜	158.农产品加工及储藏新设备开发与制造:粮食、油料、蔬菜、干鲜
品、肉食品、水产品等产品的加工储藏、保鲜、分级、包装、干燥等	果品、肉食品、水产品等产品的加工储藏、保鲜、分级、包装、干燥	果品、肉食品、水产品等产品的加工储藏、保鲜、分级、包装、干燥	果品、肉食品、水产品等产品的加工储藏、保鲜、分级、包装、干燥

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新设备,农产品品质检测仪器设备,农产品品质无损伤检测仪器设备,流变仪,粉质仪,超微粉碎设备,高效脱水设备,五效以上高效果汁浓缩设备,粉体食品物料杀菌设备,固态及半固态食品无菌包装设备,碟片式分离离心机

等新设备,农产品品质检测仪器设备,农产品品质无损伤检测仪器设备,流变仪,粉质仪,超微粉碎设备,高效脱水设备,五效以上高效果汁浓缩设备,粉体食品物料杀菌设备,固态及半固态食品无菌包装设备,碟片式分离离心机

等新设备,农产品品质检测仪器设备,农产品品质无损伤检测仪器设备,流变仪,粉质仪,超微粉碎设备,高效脱水设备,五效以上高效果汁浓缩设备,粉体食品物料杀菌设备,固态及半固态食品无菌包装设备,碟片式分离离心机

等新设备,农产品品质检测仪器设备,农产品品质无损伤检测仪器设备,流变仪,粉质仪,超微粉碎设备,高效脱水设备,五效以上高效果汁浓缩设备,粉体食品物料杀菌设备,固态及半固态食品无菌包装设备,碟片式分离离心机

#### **ENCOURAGED**

36. Manufacture of agricultural equipment: agricultural facilities and equipment (automated greenhouse irrigation equipment, automated nutritional fluid allocation and fertilizer application equipment, highefficiency vegetable cultivation equipment, and soil nutrient analysis equipment); tractors with engine power of more than 120 kW and complementary farm tools; fuelefficient, low-noise, low-emission diesel engines; sprayers that can recover unused fog particles complementary to large-scale tractors; high-performance rice transplanters; cotton harvesters and pickers; automated corn harvester (hydraulic or mechanical) that can adapt to varying row widths; rapeseed harvesters, sugar cane harvesters, and beet harvesters

#### **ENCOURAGED**

159. Manufacture of agricultural equipment: agricultural facilities and equipment (automated greenhouse irrigation equipment, automated nutritional fluid allocation and fertilizer application equipment, highefficiency vegetable cultivation equipment, and soil nutrient analysis equipment); tractors with engine power of more than 120 kW and complementary farm tools; fuelefficient, low-noise, low-emission diesel engines; sprayers that can recover unused fog particles complementary to large-scale tractors; high-performance rice transplanters: cotton harvesters and pickers; automated corn harvester (hydraulic or mechanical) that can adapt to varying row widths; peanut harvesters, rapeseed harvesters, sugar cane harvesters, and beet

#### **ENCOURAGED**

159. Manufacture of agricultural equipment: agricultural facilities and equipment (automated greenhouse irrigation equipment, automated nutritional fluid allocation and fertilizer application equipment, highefficiency vegetable cultivation equipment, and soil nutrient analysis equipment); tractors with engine power of more than 200 kW and complementary farm tools; fuelefficient, low-noise, low-emission diesel engines; sprayers that can recover unused fog particles complementary to large-scale tractors; high-performance rice transplanters; cotton harvesters and pickers; automated corn harvester (hydraulic or mechanical) that can adapt to varying row widths; peanut harvesters, rapeseed harvesters, sugar cane harvesters, and beet

#### **ENCOURAGED**

159. Manufacture of agricultural equipment: agricultural facilities and equipment (automated greenhouse irrigation equipment, automated nutritional fluid allocation and fertilizer application equipment, highefficiency vegetable cultivation equipment, and soil nutrient analysis equipment); tractors with engine power of more than 200 kW and complementary farm tools; fuelefficient, low-noise, low-emission diesel engines; sprayers that can recover unused fog particles complementary to large-scale tractors; high-performance rice transplanters; cotton harvesters and pickers; automated corn harvester (hydraulic or mechanical) that can adapt to varying row widths; peanut harvesters, rapeseed harvesters, sugar cane harvesters, and beet

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台,适应多种行距的自走式玉米联合收割机(液压驱动或机械驱动),油菜籽收获机,甘蔗收割机,甜菜收割机	harvesters 159.农业机械制造:农业设施设备 (温室自动灌溉设备、营养液自动 配置与施肥设备、高效蔬菜育苗设 备、土壤养分分析仪器),配套发 动机功率 120 千瓦以上拖拉机及配 套农具,低油耗低噪音低排放柴油 机,大型拖拉机配套的带有残余雾 粒回收装置的喷雾机,高性能水稻 插秧机,棉花采摘机及棉花采摘 台,适应多种行距的自走式玉米联 合收割机(液压驱动或机械驱动),花生收获机,油菜籽收获 机,甘蔗收割机,甜菜收割机 Revised from 2011 Catalogue:: Added "peanut harvesters"	harvesters 159.农业机械制造:农业设施设备 (温室自动灌溉设备、营养液自动 配置与施肥设备、高效蔬菜育苗设 备、土壤养分分析仪器),配套发 动机功率 200 千瓦以上拖拉机及配 套农具,低油耗低噪音低排放柴油 机,大型拖拉机配套的带有残余雾 粒回收装置的喷雾机,高性能水稻 插秧机,棉花采摘机及棉花采摘 台,适应多种行距的自走式玉米联 合收割机(液压驱动或机械驱动),花生收获机,油菜籽收获 机,甘蔗收割机,甜菜收割机 Revised from 2015 Catalogue: Changed engine power requirement for tractors and complementary farm tools from over 120kW to over 200	harvesters 159.农业机械制造:农业设施设备 (温室自动灌溉设备、营养液自动 配置与施肥设备、高效蔬菜育苗设 备、土壤养分分析仪器),配套发 动机功率 200 千瓦以上拖拉机及配 套农具,低油耗低噪音低排放柴油 机,大型拖拉机配套的带有残余雾 粒回收装置的喷雾机,高性能水稻 插秧机,棉花采摘机及棉花采摘 台,适应多种行距的自走式玉米联 合收割机(液压驱动或机械驱动),花生收获机,油菜籽收获 机,甘蔗收割机,甜菜收割机 Revised from 2015 Catalogue: Changed engine power requirement for tractors and complementary farm tools from over 120kW to over 200
ENCOURAGED 37. Manufacture of forest equipment based on new technology 37.林业机具新技术设备制造 ENCOURAGED 38. Manufacture of equipment for collection, bundling, and comprehensive utilization of straw	ENCOURAGED 160. Manufacture of forest equipment based on new technology 160. 林业机具新技术设备制造 ENCOURAGED 161. Manufacture of equipment for collection, bundling, and comprehensive utilization of straw	kW.  ENCOURAGED  160. Manufacture of forest equipment based on new technology 160. 林业机具新技术设备制造  ENCOURAGED  161. Manufacture of equipment for collection, bundling, and comprehensive utilization of straw	kW.  ENCOURAGED  160. Manufacture of forest equipment based on new technology 160. 林业机具新技术设备制造  ENCOURAGED 161. Manufacture of equipment for collection, bundling, and comprehensive utilization of straw

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38.农作物秸秆收集、打捆及综合利		161. 农作物秸秆收集、打捆及综合	161. 农作物秸秆收集、打捆及综合
用设备制造	利用设备制造	利用设备制造	利用设备制造
ENCOURAGED 39. Manufacture of equipment for	ENCOURAGED  162. Manufacture of equipment for	ENCOURAGED  162. Manufacture of equipment for	ENCOURAGED  162. Manufacture of equipment for
large-scale resource utilization of			
farm waste and animal- and bird-			
breeding waste	breeding waste	breeding waste	breeding waste
39.农用废物的资源化利用及规模化	162.农用废物的资源化利用及规模	162.农用废物的资源化利用及规模	162.农用废物的资源化利用及规模
畜禽养殖废物的资源化利用设备制	化畜禽养殖废物的资源化利用设备	化畜禽养殖废物的资源化利用设备	化畜禽养殖废物的资源化利用设备
造	制造	制造	制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
40. Manufacture of technical	163. Manufacture of technical	163. Manufacture of technical	163. Manufacture of technical
equipment to conserve fertilizer,			
pesticides, and water	pesticides, and water	pesticides, and water	pesticides, and water
40.节肥、节(农)药、节水型农业		163. 节肥、节(农)药、节水型农	163. 节肥、节(农)药、节水型农
技术设备制造	业技术设备制造	业技术设备制造	业技术设备制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
41. Manufacture of cleaning	164. Manufacture of cleaning	164. Manufacture of cleaning	164. Manufacture of cleaning
equipment for electromechanical wells and pharmaceutical production			
equipment	equipment	equipment	equipment
41.机电井清洗设备及清洗药物生产	164. 机电井清洗设备及清洗药物生	164. 机电井清洗设备及清洗药物生	164. 机电井清洗设备及清洗药物生
设备制造	产设备制造	产设备制造	产设备制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
42. Manufacture of electronic	165. Manufacture of electronic	165. Manufacture of electronic	165. Manufacture of electronic
endoscopes	endoscopes	endoscopes	endoscopes
42.电子内窥镜制造	165. 电子内窥镜制造	165. 电子内窥镜制造	165. 电子内窥镜制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
43. Manufacture of retinal cameras	166. Manufacture of retinal cameras	166. Manufacture of retinal cameras	166. Manufacture of retinal cameras
43.眼底摄影机制造	166. 眼底摄影机制造	166. 眼底摄影机制造	166. 眼底摄影机制造
	ution by the US China Business Council t		

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ENCOURAGED		ENCOURAGED	ENCOURAGED
44. Manufacture of key elements of	•	167. Manufacture of key elements of	167. Manufacture of key elements of
medical imaging equipment (high-	medical imaging equipment (high-	medical imaging equipment (high-	medical imaging equipment (high-
field superconducting magnetic	field superconducting magnetic	field superconducting magnetic	field superconducting magnetic
resonance imaging equipment, X-ray	resonance imaging equipment, X-ray computed tomography imaging	resonance imaging equipment, X-ray	resonance imaging equipment, X-ray
computed tomography imaging equipment, and digital color	equipment, and digital color	computed tomography imaging equipment, and digital color	computed tomography imaging equipment, and digital color
ultrasound diagnostic equipment)	ultrasound diagnostic equipment)	ultrasound diagnostic equipment)	ultrasound diagnostic equipment)
44.医用成像设备(高场强超导型磁	167. 医用成像设备(高场强超导型	167. 医用成像设备(高场强超导型	167. 医用成像设备(高场强超导型
共振成像设备、X 线计算机断层成	磁共振成像设备、X线计算机断层	磁共振成像设备、X线计算机断层	磁共振成像设备、X线计算机断层
像设备、数字化彩色超声诊断设备	成像设备、数字化彩色超声诊断设	成像设备、数字化彩色超声诊断设	成像设备、数字化彩色超声诊断设
等)关键部件的制造	备等) 关键部件的制造	备等) 关键部件的制造	备等) 关键部件的制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
45. Manufacture of supersonic	168. Manufacture of supersonic	168. Manufacture of supersonic	168. Manufacture of supersonic
energy converters (3D) for medical	energy converters (3D) for medical	energy converters (3D) for medical	energy converters (3D) for medical
applications	applications	applications	applications
45.医用超声换能器(3D)制造	168. 医用超声换能器(3D)制造	168. 医用超声换能器(3D)制造	168. 医用超声换能器(3D)制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
46. Manufacture of boron neutron	169. Manufacture of boron neutron	169. Manufacture of boron neutron	169. Manufacture of boron neutron
capture therapy (BNCT) equipment	capture therapy (BNCT) equipment	capture therapy (BNCT) equipment	capture therapy (BNCT) equipment
46.硼中子俘获治疗设备制造	169. 硼中子俘获治疗设备制造	169. 硼中子俘获治疗设备制造	169. 硼中子俘获治疗设备制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
47. Manufacture of image-guided,	170. Manufacture of image-guided,	170. Manufacture of image-guided,	170. Manufacture of image-guided,
intensity-modulated radiation	intensity-modulated radiation	intensity-modulated radiation	intensity-modulated radiation
	• • •	therapy system	therapy system
47.图像引导适型调强放射治疗系统	170. 图像引导适型调强放射治疗系	170. 图像引导适型调强放射治疗系	170. 图像引导适型调强放射治疗系
制造	统制造	统制造	统制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
48. Manufacture of hemodialysis and	171. Manufacture of hemodialysis	171. Manufacture of hemodialysis	171. Manufacture of hemodialysis

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and equipment that control medicine quality 50.药品质量控制新技术、新设备制	and equipment that control medicine quality 173.药品质量控制新技术、新设备	and equipment that control medicine quality 173.药品质量控制新技术、新设备	and equipment that control medicine quality 173.药品质量控制新技术、新设备
ENCOURAGED 50. Manufacture of new technology	ENCOURAGED 173. Manufacture of new technology	<u> </u>	ENCOURAGED 173. Manufacture of new technology
49. Manufacture of automatic enzyme immunoassay equipment (functions include sample addition, enzyme labeling, washing templates, hatching, and data management) 49.全自动酶免系统(含加样、酶标、洗板、孵育、数据后处理等部分功能)设备制造	TAICOURACER	TAICOUPA CED	ENCOLIDA CED.
ENCOURAGED	Deleted		
	immunoassay analyzers, high-throughput gene sequencing systems 172.全自动生化监测设备、五分类血液细胞分析仪、全自动化学发光免疫分析仪、高通量基因测序系统制造Added	immunoassay analyzers, high-throughput gene sequencing systems 172.全自动生化监测设备、五分类血液细胞分析仪、全自动化学发光免疫分析仪、高通量基因测序系统制造	immunoassay analyzers, high-throughput gene sequencing systems 172.全自动生化监测设备、五分类血液细胞分析仪、全自动化学发光免疫分析仪、高通量基因测序系统制造
	ENCOURAGED 172. Manufacture of fully automated biochemical monitoring devices, five-category blood cell analyzers, fully automatic chemiluminescence	ENCOURAGED 172. Manufacture of fully automated biochemical monitoring devices, five-category blood cell analyzers, fully automatic chemiluminescence	ENCOURAGED 172. Manufacture of fully automated biochemical monitoring devices, five-category blood cell analyzers, fully automatic chemiluminescence
blood-filtering machines 48.血液透析机、血液过滤机制造	and blood-filtering machines 171.血液透析机、血液过滤机制造	and blood-filtering machines 171.血液透析机、血液过滤机制造	and blood-filtering machines 171.血液透析机、血液过滤机制造

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ENCOURAGED 51. New technology for analysis of effective ingredients in natural medicines, new techniques for extraction, and development and manufacture of new equipment for these purposes 51.天然药物有效物质分析的新技术、提取的新工艺、新设备开发与制造		ENCOURAGED 174. New technology for analysis of effective ingredients in natural medicines, new techniques for extraction, and development and manufacture of new equipment for these purposes 174.天然药物有效物质分析的新技术、提取的新工艺、新设备开发与制造	ENCOURAGED 174. New technology for analysis of effective ingredients in natural medicines, new techniques for extraction, and development and manufacture of new equipment for these purposes 174.天然药物有效物质分析的新技术、提取的新工艺、新设备开发与制造
ENCOURAGED 52. Manufacture of multi-layer water-cooled film blow molding equipment with non-PVC medical intravenous infusion bags 52.非 PVC 医用输液袋多层共挤水 冷式薄膜吹塑装备制造	ENCOURAGED 175. Manufacture of multi-layer water-cooled film blow molding equipment with non-PVC medical intravenous infusion bags 175.非 PVC 医用输液袋多层共挤水 冷式薄膜吹塑装备制造	ENCOURAGED 175. Manufacture of multi-layer water-cooled film blow molding equipment with non-PVC medical intravenous infusion bags 175.非 PVC 医用输液袋多层共挤水 冷式薄膜吹塑装备制造	ENCOURAGED 175. Manufacture of multi-layer water-cooled film blow molding equipment with non-PVC medical intravenous infusion bags 175.非 PVC 医用输液袋多层共挤水 冷式薄膜吹塑装备制造
ENCOURAGED 53. Development and manufacture of new textile machinery, key parts, and instruments for textile inspection and experimentation 53.新型纺织机械、关键零部件及纺织检测、实验仪器开发与制造	ENCOURAGED 176. Development and manufacture of new textile machinery, key parts, and instruments for textile inspection and experimentation 176.新型纺织机械、关键零部件及 纺织检测、实验仪器开发与制造	ENCOURAGED 176. Development and manufacture of new textile machinery, key parts, and instruments for textile inspection and experimentation 176.新型纺织机械、关键零部件及 纺织检测、实验仪器开发与制造	ENCOURAGED 176. Development and manufacture of new textile machinery, key parts, and instruments for textile inspection and experimentation 176.新型纺织机械、关键零部件及 纺织检测、实验仪器开发与制造
ENCOURAGED 54. Manufacture of computerized jacquard equipment for making fake fur 54.电脑提花人造毛皮机制造	ENCOURAGED 177. Manufacture of computerized jacquard equipment for making fake fur 177.电脑提花人造毛皮机制造	ENCOURAGED 177. Manufacture of computerized jacquard equipment for making fake fur 177.电脑提花人造毛皮机制造	ENCOURAGED 177. Manufacture of computerized jacquard equipment for making fake fur 177.电脑提花人造毛皮机制造
ENCOURAGED 55. Manufacture of specialized	ENCOURAGED 178. Manufacture of specialized	ENCOURAGED 178. Manufacture of specialized	ENCOURAGED 178. Manufacture of specialized

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

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equipment for the production of solar powered-batteries 55.太阳能电池生产专用设备制造	equipment for the production of solar powered-batteries 178.太阳能电池生产专用设备制造	equipment for the production of solar powered-batteries 178.太阳能电池生产专用设备制造	equipment for the production of solar powered-batteries 178.太阳能电池生产专用设备制造
ENCOURAGED 56. Manufacture of air-pollution prevention and control equipment: high-temperature- and corrosion-resistant filtering material, low-NOx combustion equipment; catalysts for denitrification of smoke and complete set of denitrification equipment; purifying equipment for polluted organic gases, purification equipment for gas expelled from diesel vehicles; treatment devices for exhaust gas containing heavy metals 56.大气污染防治设备制造:耐高温及耐腐蚀滤料、低 NOx 燃烧装置、烟气脱氮催化剂及脱氮成套装置、工业有机废气净化设备、柴油车排气净化装置、含重金属废气处理装置	ENCOURAGED 179. Manufacture of air-pollution prevention and control equipment: high-temperature- and corrosion- resistant filtering material, low-NOx combustion equipment; catalysts for denitrification of smoke and complete set of denitrification equipment; purifying equipment for polluted organic gases, purification equipment for gas expelled from diesel vehicles; treatment devices for exhaust gas containing heavy metals 179.大气污染防治设备制造:耐高 温及耐腐蚀滤料、低 NOx 燃烧装置、烟气脱氮催化剂及脱氮成套装置、工业有机废气净化设备、柴油 车排气净化装置、含重金属废气处 理装置	ENCOURAGED 179. Air pollution control equipment manufacturing: high temperature and corrosion resistance filter, low NOx combustion device, flue gas denitrification catalyst and denitrification complete sets of equipment, flue gas desulfurization equipment, flue gas dust removal equipment, industrial organic waste gas purification equipment, diesel exhaust Purification equipment, heavy metal waste gas treatment device 179. 大气污染防治设备制造:耐高温及耐腐蚀滤料、低 NOx 燃烧装置、烟气脱氮催化剂及脱氮成套装置、烟气脱硫设备、烟气除尘设备、工业有机废气净化设备、柴油车排气净化装置、含重金属废气处理装置 Revised from 2015 Catalogue: Added flue gas desulfurization equipment, flue gas dust removal equipment	ENCOURAGED 179. Air pollution control equipment manufacturing: high temperature and corrosion resistance filter, low NOx combustion device, flue gas denitrification catalyst and denitrification complete sets of equipment, flue gas desulfurization equipment, flue gas dust removal equipment, industrial organic waste gas purification equipment, diesel exhaust Purification equipment, heavy metal waste gas treatment device 179. 大气污染防治设备制造:耐高温及耐腐蚀滤料、低 NOx 燃烧装置、烟气脱氮催化剂及脱氮成套装置、烟气脱硫设备、烟气除尘设备、工业有机废气净化设备、柴油车排气净化装置、含重金属废气处理装置 Revised from 2015 Catalogue: Added flue gas desulfurization equipment, flue gas dust removal equipment
ENCOURAGED  57. Manufacture of water-pollution prevention and control equipment: horizontal screw centrifugal dehydrator, membrane and	ENCOURAGED  180. Manufacture of water-pollution prevention and control equipment: horizontal screw centrifugal dehydrator, membrane and	ENCOURAGED  180. Manufacture of water-pollution prevention and control equipment: horizontal screw centrifugal dehydrator, membrane and	ENCOURAGED  180. Manufacture of water-pollution prevention and control equipment: horizontal screw centrifugal dehydrator, membrane and

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membrane material, ozonizer with more than 50 kg/hour, chlorine dioxide generator with more than 10 kg/hour, ultraviolet disinfection devices, small domestic sewage treatment devices in rural areas, treatment devices for waste water containing heavy metals 57.水污染防治设备制造:卧式螺旋 180.水污染防治设备制造:卧式螺 离心脱水机、膜及膜材料、50kg/h 以上的臭氧发生器、10kg/h以上的 二氧化氯发生器、紫外消毒装置、 农村小型生活污水处理设备、含重 金属废水处理装置

membrane material, ozonizer with more than 50 kg/hour, chlorine dioxide generator with more than 10 kg/hour, ultraviolet disinfection devices, small domestic sewage treatment devices in rural areas, treatment devices for waste water containing heavy metals 旋离心脱水机、膜及膜材料、 50kg/h 以上的臭氧发生器、10kg/h 以上的二氧化氯发生器、紫外消毒 装置、农村小型生活污水处理设 备、含重金属废水处理装置

membrane material, ozonizer with more than 50 kg/hour, chlorine dioxide generator with more than 10 kg/hour, ultraviolet disinfection devices, small domestic sewage treatment devices in rural areas, treatment devices for waste water containing heavy metals 180.水污染防治设备制造:卧式螺 旋离心脱水机、膜及膜材料、 50kg/h 以上的臭氧发生器、10kg/h 以上的二氧化氯发生器、紫外消毒 装置、农村小型生活污水处理设 备、含重金属废水处理装置

membrane material, ozonizer with more than 50 kg/hour, chlorine dioxide generator with more than 10 kg/hour, ultraviolet disinfection devices, small domestic sewage treatment devices in rural areas, treatment devices for waste water containing heavy metals 180.水污染防治设备制造:卧式螺 旋离心脱水机、膜及膜材料、 50kg/h 以上的臭氧发生器、10kg/h 以上的二氧化氯发生器、紫外消毒 装置、农村小型生活污水处理设 备、含重金属废水处理装置

#### **ENCOURAGED**

58. Manufacture of equipment used to treat solid waste: equipment for wastewater treatment plant sludge disposal and resource utilization; trash incineration equipment for daily processing capacity of more than 500 tons; landfill leachate treatment technology and equipment; impermeable landfill geomembrane; construction, waste disposal, and resource utilization equipment; hazardous waste treatment plants; landfill methane power generation equipment; waste iron and steel processing equipment; contaminated soil restoration

# **ENCOURAGED**

181. Manufacture of equipment used to treat solid waste: equipment for wastewater treatment plant sludge disposal and resource utilization; trash incineration equipment for daily processing capacity of more than 500 tons; landfill leachate treatment technology and equipment; impermeable landfill geomembrane; construction, waste disposal, and resource utilization equipment; hazardous waste treatment plants; landfill methane power generation equipment; waste iron and steel processing equipment; contaminated soil restoration

# **ENCOURAGED**

181. Manufacture of equipment used to treat solid waste: equipment for wastewater treatment plant sludge disposal and resource utilization; trash incineration equipment for daily processing capacity of more than 500 tons; landfill leachate treatment technology and equipment; impermeable landfill geomembrane; construction, waste disposal, and resource utilization equipment; hazardous waste treatment plants; landfill methane power generation equipment; waste iron and steel processing equipment; contaminated soil restoration

# **ENCOURAGED**

181. Manufacture of equipment used to treat solid waste: equipment for wastewater treatment plant sludge disposal and resource utilization; trash incineration equipment for daily processing capacity of more than 500 tons; landfill leachate treatment technology and equipment; impermeable landfill geomembrane; construction, waste disposal, and resource utilization equipment; hazardous waste treatment plants; landfill methane power generation equipment; waste iron and steel processing equipment; contaminated soil restoration

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equipment 58.固体废物处理处置设备制造:污水处理厂污泥处置及资源利用设备、日处理量 500 吨以上垃圾焚烧成套设备、垃圾填埋渗滤液处理技术装备、垃圾填埋场防渗土工膜、建筑垃圾处理和资源化利用装备、危险废物处理装置、垃圾填埋场沼气发电装置、废钢铁处理设备、污	equipment 181.固体废物处理处置设备制造: 污水处理厂污泥处置及资源利用设备、日处理量 500 吨以上垃圾焚烧成套设备、垃圾填埋渗滤液处理技术装备、垃圾填埋场防渗土工膜、建筑垃圾处理和资源化利用装备、危险废物处理装置、垃圾填埋场沼气发电装置、废钢铁处理设备、污	equipment 181.固体废物处理处置设备制造: 污水处理厂污泥处置及资源利用设备、日处理量 500 吨以上垃圾焚烧成套设备、垃圾填埋渗滤液处理技术装备、垃圾填埋场防渗土工膜、建筑垃圾处理和资源化利用装备、危险废物处理装置、垃圾填埋场沼气发电装置、废钢铁处理设备、污	equipment 181.固体废物处理处置设备制造: 污水处理厂污泥处置及资源利用设备、日处理量 500 吨以上垃圾焚烧成套设备、垃圾填埋渗滤液处理技术装备、垃圾填埋场防渗土工膜、建筑垃圾处理和资源化利用装备、危险废物处理装置、垃圾填埋场沼气发电装置、废钢铁处理设备、污
染土壤修复设备 ENCOURAGED 59. Development and manufacture of equipment for comprehensive utilization of red clay in the aluminum industry 59.铝工业赤泥综合利用设备开发与制造	染土壤修复设备 ENCOURAGED 182. Development and manufacture of equipment for comprehensive utilization of red clay in the aluminum industry 182.铝工业赤泥综合利用设备开发与制造	染土壤修复设备 ENCOURAGED 182. Development and manufacture of equipment for comprehensive utilization of red clay in the aluminum industry 182.铝工业赤泥综合利用设备开发与制造	染土壤修复设备 ENCOURAGED 182. Development and manufacture of equipment for comprehensive utilization of red clay in the aluminum industry 182.铝工业赤泥综合利用设备开发与制造
ENCOURAGED 60. Manufacture of equipment for comprehensive use of mine tailings 60.尾矿综合利用设备制造	ENCOURAGED 183. Manufacture of equipment for comprehensive use of mine tailings 183.尾矿综合利用设备制造	ENCOURAGED 183. Manufacture of equipment for comprehensive use of mine tailings 183.尾矿综合利用设备制造	ENCOURAGED 183. Manufacture of equipment for comprehensive use of mine tailings 183.尾矿综合利用设备制造
ENCOURAGED 61. Manufacture of equipment for management and reuse of waste plastics, electronic equipment, rubber, and for recycling batteries	ENCOURAGED 184. Manufacture of equipment for management and reuse of waste plastics, electronic equipment, rubber, and for recycling batteries	ENCOURAGED 184. Manufacture of equipment for management and reuse of waste plastics, electronic equipment, rubber, and for recycling batteries	ENCOURAGED 184. Manufacture of equipment for management and reuse of waste plastics, electronic equipment, rubber, and for recycling batteries

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61.废旧塑料、电器、橡胶、电池回	184.废旧塑料、电器、橡胶、电池	184.废旧塑料、电器、橡胶、电池	184.废旧塑料、电器、橡胶、电池
收处理再生利用设备制造	回收处理再生利用设备制造	回收处理再生利用设备制造	回收处理再生利用设备制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
62. Manufacture of equipment for	185. Manufacture of equipment for	185. Manufacture of equipment for	185. Manufacture of equipment for
textile waste recycling and processing	textile waste recycling and processing	textile waste recycling and processing	textile waste recycling and processing
62.废旧纺织品回收处理设备制造	185.废旧纺织品回收处理设备制造	185.废旧纺织品回收处理设备制造	185.废旧纺织品回收处理设备制造
ENCOURAGED 63. Manufacture of equipment for remanufacture of waste machinery and power-generating products 63.废旧机电产品再制造设备制造	ENCOURAGED	ENCOURAGED	ENCOURAGED
	186. Manufacture of equipment for	186. Manufacture of equipment for	186. Manufacture of equipment for
	remanufacture of waste machinery	remanufacture of waste machinery	remanufacture of waste machinery
	and power-generating products	and power-generating products	and power-generating products
	186.废旧机电产品再制造设备制造	186.废旧机电产品再制造设备制造	186.废旧机电产品再制造设备制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
64. Manufacture of equipment for	187. Manufacture of equipment for	187. Manufacture of equipment for	187. Manufacture of equipment for
comprehensive use of waste tires	comprehensive use of waste tires	comprehensive use of waste tires	comprehensive use of waste tires
64.废旧轮胎综合利用装置制造	187.废旧轮胎综合利用装置制造	187.废旧轮胎综合利用装置制造	187.废旧轮胎综合利用装置制造
ENCOURAGED 65. Manufacture of technology and equipment for protection of the aquatic ecological environment 65.水生生态系统的环境保护技术、设备制造	ENCOURAGED 188. Manufacture of technology and equipment for protection of the aquatic ecological environment 188.水生生态系统的环境保护技术、设备制造	ENCOURAGED 188. Manufacture of technology and equipment for protection of the aquatic ecological environment 188.水生生态系统的环境保护技术、设备制造	ENCOURAGED 188. Manufacture of technology and equipment for protection of the aquatic ecological environment 188.水生生态系统的环境保护技术、设备制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
66. Manufacture of mobile water	189. Manufacture of mobile water	189. Manufacture of mobile water	189. Manufacture of mobile water
purification equipment	purification equipment	purification equipment	purification equipment
66.移动式组合净水设备制造	189.移动式组合净水设备制造	189.移动式组合净水设备制造	189.移动式组合净水设备制造
ENCOURAGED 67. Innovative water treatment, reuse equipment, and water quality monitoring instruments	ENCOURAGED 190. Innovative water treatment, reuse equipment, and water quality monitoring instruments	ENCOURAGED 190. Innovative water treatment, reuse equipment, and water quality monitoring instruments	ENCOURAGED 190. Innovative water treatment, reuse equipment, and water quality monitoring instruments

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67.非常规水处理、重复利用设备与	190.非常规水处理、重复利用设备	190.非常规水处理、重复利用设备	190.非常规水处理、重复利用设备
水质监测仪器	与水质监测仪器	与水质监测仪器	与水质监测仪器
ENCOURAGED 68. Leak detection apparatus and equipment for industrial water supply network and equipment (apparatus) 68.工业水管网和设备(器具)的检漏设备和仪器	ENCOURAGED 191. Leak detection apparatus and equipment for industrial water supply network and equipment (apparatus) 191.工业水管网和设备(器具)的 检漏设备和仪器	ENCOURAGED 191. Leak detection apparatus and equipment for industrial water supply network and equipment (apparatus) 191.工业水管网和设备(器具)的 检漏设备和仪器	ENCOURAGED 191. Leak detection apparatus and equipment for industrial water supply network and equipment (apparatus) 191.工业水管网和设备(器具)的 检漏设备和仪器
ENCOURAGED 69. Development and manufacture of seawater desalination and circulation-cooling technology and equipment sets with production capacity of 100,000 m3 or more 69.日产 10 万立方米及以上海水淡化及循环冷却技术和成套设备开发与制造	ENCOURAGED 192. Development and manufacture of seawater desalination and circulation-cooling technology and equipment sets with production capacity of 100,000 m3 or more 192.日产 10 万立方米及以上海水淡化及循环冷却技术和成套设备开发与制造	ENCOURAGED 192. Development and manufacture of seawater desalination and circulation-cooling technology and equipment sets with production capacity of 100,000 m3 or more 192.日产 10 万立方米及以上海水淡化及循环冷却技术和成套设备开发与制造	ENCOURAGED 192. Development and manufacture of seawater desalination and circulation-cooling technology and equipment sets with production capacity of 100,000 m3 or more 192.日产 10 万立方米及以上海水淡化及循环冷却技术和成套设备开发与制造
ENCOURAGED 70. Manufacture of special equipment for weather observation and analysis 70.特种气象观测及分析设备制造	ENCOURAGED 193. Manufacture of special equipment for weather observation and analysis 193.特种气象观测及分析设备制造	ENCOURAGED 193. Manufacture of special equipment for weather observation and analysis 193.特种气象观测及分析设备制造	ENCOURAGED 193. Manufacture of special equipment for weather observation and analysis 193.特种气象观测及分析设备制造
ENCOURAGED 71. Development and manufacture equipment for seismological stations, networks, and mobile systems with seismological observation technology 71.地震台站、台网和流动地震观测 技术系统开发及仪器设备制造	ENCOURAGED 194. Development and manufacture equipment for seismological stations, networks, and mobile systems with seismological observation technology 194.地震台站、台网和流动地震观 测技术系统开发及仪器设备制造	ENCOURAGED 194. Development and manufacture equipment for seismological stations, networks, and mobile systems with seismological observation technology 194.地震台站、台网和流动地震观 测技术系统开发及仪器设备制造	ENCOURAGED 194. Development and manufacture equipment for seismological stations, networks, and mobile systems with seismological observation technology 194.地震台站、台网和流动地震观 测技术系统开发及仪器设备制造

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ENCOURAGED 72. Manufacture of machines for construction of radial tires with three or more drums 72.三鼓及以上子午线轮胎成型机制造	ENCOURAGED 195. Manufacture of machines for construction of radial tires with four or more drums 195. 四鼓及以上子午线轮胎成型机制造 Revised from 2011 Catalogue: Changed "three or more drums" to "four or more drums"	ENCOURAGED 195. Manufacture of machines for construction of radial tires with four or more drums 195. 四鼓及以上子午线轮胎成型机制造	ENCOURAGED 195. Manufacture of machines for construction of radial tires with four or more drums 195. 四鼓及以上子午线轮胎成型机制造
ENCOURAGED 73. Manufacture of machines for experiments with rolling resistance and of tire noise laboratories 73.滚动阻力试验机、轮胎噪音试验室制造	ENCOURAGED 196. Manufacture of machines for experiments with rolling resistance and of tire noise laboratories 196.滚 动阻力试验机、轮胎噪音试验室制 造	ENCOURAGED 196. Manufacture of machines for experiments with rolling resistance and of tire noise laboratories 196.滚动阻力试验机、轮胎噪音试验室制造	ENCOURAGED 196. Manufacture of machines for experiments with rolling resistance and of tire noise laboratories 196.滚动阻力试验机、轮胎噪音试 验室制造
ENCOURAGED 74. Manufacture of new technical equipment for heating measurement and temperature control 74.供热计量、温控装置新技术设备制造	ENCOURAGED 197. Manufacture of new technical equipment for heating measurement and temperature control 197.供热计量、温控装置新技术设备制造	ENCOURAGED 197. Manufacture of new technical equipment for heating measurement and temperature control 197.供热计量、温控装置新技术设备制造	ENCOURAGED 197. Manufacture of new technical equipment for heating measurement and temperature control 197.供热计量、温控装置新技术设备制造
ENCOURAGED 75. Manufacture of equipment for production, storage, and transportation of hydrogen energy and associated testing systems 75.氢能制备与储运设备及检查系统制造	ENCOURAGED 198. Manufacture of equipment for production, storage, and transportation of hydrogen energy and associated testing systems 198.氢能制备与储运设备及检查系统制造	ENCOURAGED 198. Manufacture of equipment for production, storage, and transportation of hydrogen energy and associated testing systems 198.氢能制备与储运设备及检查系统制造	ENCOURAGED 198. Manufacture of equipment for production, storage, and transportation of hydrogen energy and associated testing systems 198.氢能制备与储运设备及检查系统制造
ENCOURAGED 76. Manufacture of new heavy (residual) fuel oil spray nozzles, high-	ENCOURAGED 199. Manufacture of new heavy (residual) fuel oil spray nozzles, high-	ENCOURAGED 199. Manufacture of new heavy (residual) fuel oil spray nozzles, high-	ENCOURAGED 199. Manufacture of new heavy (residual) fuel oil spray nozzles, high-

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efficiency steam dredging valves (with gas leakage at or below 0.5%) and high-temperature (at or above 1,000°C) ceramic heat converters 76.新型重渣油气化雾化喷嘴、漏汽率 0.5%及以下高效蒸汽疏水阀、1000°C及以上高温陶瓷换热器制造	efficiency steam dredging valves (with gas leakage at or below 0.5%) and high-temperature (at or above 1,000°C) ceramic heat converters 199.新型重渣油气化雾化喷嘴、漏汽率 0.5%及以下高效蒸汽疏水阀、1000°C 及以上高温陶瓷换热器制造	efficiency steam dredging valves (with gas leakage at or below 0.5%) and high-temperature (at or above 1,000°C) ceramic heat converters 199.新型重渣油气化雾化喷嘴、漏汽率 0.5%及以下高效蒸汽疏水阀、1000°C 及以上高温陶瓷换热器制造	efficiency steam dredging valves (with gas leakage at or below 0.5%) and high-temperature (at or above 1,000°C) ceramic heat converters 199.新型重渣油气化雾化喷嘴、漏汽率 0.5%及以下高效蒸汽疏水阀、1000°C 及以上高温陶瓷换热器制造
ENCOURAGED 77. Manufacture of oil spill recovery equipment 77.海上溢油回收装置制造	ENCOURAGED 200. Manufacture of oil spill recovery equipment 200. 海上溢油回收装置制造	ENCOURAGED	ENCOURAGED 200. Manufacture of oil spill recovery equipment 200.海上溢油回收装置制造
ENCOURAGED 78. Manufacture of equipment for low concentration of coal mine gases with lack of wind use 78.低浓度煤矿瓦斯和乏风利用设备制造	ENCOURAGED 201. Manufacture of equipment for low concentration of coal mine gases with lack of wind use 201. 低浓度煤矿瓦斯和乏风利用设备制造	ENCOURAGED 201. Manufacture of equipment for low concentration of coal mine gases with lack of wind use 201. 低浓度煤矿瓦斯和乏风利用设备制造	ENCOURAGED 201. Manufacture of equipment for low concentration of coal mine gases with lack of wind use 201. 低浓度煤矿瓦斯和乏风利用设备制造
Recategorized: Moved to "Specialized equipment manufacturing" (用设备 制造业)from "Crafts and other manufacturing industries" (工艺品及 其他制造业)	ENCOURAGED 202. Manufacture and development of equipment, products and technologies for clean coal (gasification, liquefaction, coal-water slurry, and industrial coal) 202.洁净 煤技术产品的开发利用及设备制造 (煤炭气化、液化、水煤浆、工业 型煤)	ENCOURAGED 202. Manufacture and development of equipment, products and technologies for clean coal (gasification, liquefaction, coal-water slurry, and industrial coal) 202.洁净煤技术产品的开发利用及 设备制造(煤炭气化、液化、水煤 浆、工业型煤)	ENCOURAGED 202. Manufacture and development of equipment, products and technologies for clean coal (gasification, liquefaction, coal-water slurry, and industrial coal) 202.洁净煤技术产品的开发利用及 设备制造(煤炭气化、液化、水煤 浆、工业型煤)
	ENCOURAGED 203. Manufacture and development of equipment and technologies for firefighting and rescuing in large	ENCOURAGED 203. Manufacture and development of equipment and technologies for firefighting and rescuing in large	ENCOURAGED 203. Manufacture and development of equipment and technologies for firefighting and rescuing in large

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	public buildings, high structures, petrochemical infrastructure, forests, mountains, waters, and underground infrastructure 203.大型公共建筑、高层建筑、石油化工设施、森林、山岳、水域和地下设施消防灭火救援技术开发与设备制造Added	public buildings, high structures, petrochemical infrastructure, forests, mountains, waters, and underground infrastructure 203.大型公共建筑、高层建筑、石油化工设施、森林、山岳、水域和地下设施消防灭火救援技术开发与设备制造	public buildings, high structures, petrochemical infrastructure, forests, mountains, waters, and underground infrastructure 203. 大型公共建筑、高层建筑、石油化工设施、森林、山岳、水域和地下设施消防灭火救援技术开发与设备制造
		ENCOURAGED 204. Intelligent emergency medical rescue equipment manufacturing 204. 智能化紧急医学救援设备制造 Added	ENCOURAGED 204. Intelligent emergency medical rescue equipment manufacturing 204. 智能化紧急医学救援设备制造 Added
(十九)汽车制造业 (19.) Vehicle	manufacturing		
			ENCOURAGED 205. Hydraulic sensor equipment manufacturing 205. 水文监测传感器制 Added
ENCOURAGED  1. Manufacture of auto engines and establishment of engine research and development (R&D) institutions: gasoline engines with power no less than 70 kW/liter (kW/L); diesel engines with power no less than 50 kW/L and engine displacement of less than 3 liters; diesel engines with power no less than 40 kW/L and engine displacement of more than 3	and establishment of engine research and development (R&D) institutions: gasoline engines with power no less than 70 kW/liter (kW/L); diesel engines with power no less than 50	ENCOURAGED 205. Manufacture of auto engines and establishment of engine research and development (R&D) institutions: gasoline engines with power no less than 70 kW/liter (kW/L); diesel engines with power no less than 50 kW/L and engine displacement of less than 3 liters; diesel engines with power no less than 40 kW/L and engine displacement of more than 3	ENCOURAGED 206. Manufacture of auto engines and establishment of engine research and development (R&D) institutions: gasoline engines with power no less than 70 kW/liter (kW/L); diesel engines with power no less than 50 kW/L and engine displacement of less than 3 liters; diesel engines with power no less than 40 kW/L and engine displacement of more than 3

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liters; new-energy engines driven by fuel cells, mixed-fuel, and other new energies

1.汽车发动机制造及发动机研发机构建设: 升功率不低于 70 千瓦的汽油发动机、升功率不低于 50 千瓦的排量 3 升以下柴油发动机、升功率不低于 40 千瓦的排量 3 升以上柴油发动机、燃料电池和混合燃料等新能源发动机

liters; new-energy engines driven by fuel cells, mixed-fuel, and other new energies

204.汽车发动机制造及发动机研发机构建设:升功率不低于 70 千瓦的汽油发动机、升功率不低于 50 千瓦的排量 3 升以下柴油发动机、升功率不低于 40 千瓦的排量 3 升以上柴油发动机、燃料电池和混合燃料等新能源发动机

liters; new-energy engines driven by fuel cells, mixed-fuel, and other new energies

205.汽车发动机制造及发动机研发机构建设:升功率不低于 70 千瓦的汽油发动机、升功率不低于 50 千瓦的排量 3 升以下柴油发动机、升功率不低于 40 千瓦的排量 3 升以上柴油发动机、燃料电池和混合燃料等新能源发动机

liters; new-energy engines driven by fuel cells, mixed-fuel, and other new energies

206. 汽车发动机制造及发动机研发机构建设: 升功率不低于 70 干瓦的汽油发动机、升功率不低于 50 干瓦的排量 3 升以下柴油发动机、升功率不低于 40 干瓦的排量 3 升以上柴油发动机、燃料电池和混合燃料等新能源发动机

### **ENCOURAGED**

2. Manufacture of critical auto parts and R&D in key technologies: double clutch transmission (DCT), electronically-controlled automated mechanical transmission (AMT), gasoline engine turbochargers viscous coupling units (for four-wheel drive), automatic transmission actuator (solenoid valve), hydraulic retarder, eddy current retarder, gas generators for airbag safety systems, common-rail fuel injection technology (maximum injection pressure greater than 2,000 Pa), variable geometry turbocharger (VGT) technology, variable nozzle turbocharger (VNT) technology, engine emission control devices complying with China Phase V Pollutant Emission Standards,

## **ENCOURAGED**

205. Manufacture of critical auto parts and R&D in key technologies: double clutch transmission (DCT), electronically-controlled automated mechanical transmission (AMT), gasoline engine turbochargers viscous coupling units (for four-wheel drive), automatic transmission actuator (solenoid valve), hydraulic retarder, eddy current retarder, gas generators for airbag safety systems, common-rail fuel injection technology (maximum injection pressure greater than 2,000 Pa), variable geometry turbocharger (VGT) technology, variable nozzle turbocharger (VNT) technology, engine emission control devices complying with China Phase V Pollutant Emission Standards,

## **ENCOURAGED**

206. Automotive key components manufacturing and key technology research and development: dual clutch transmission (DCT), stepless automatic transmission (CVT), electronic control mechanical transmission (AMT), gasoline engine turbocharger, viscous coupling (fourwheel drive), Automatic transmission actuators (solenoid valves), hydraulic retarders, eddy current retarders, automotive airbag gas generators, fuel common rail injection technology (maximum injection pressure greater than 2000 Pa), variable cross-section turbocharging Technology (VGT), variable nozzle turbocharging technology (VNT), engine emission control devices to meet the emission standards of the

# **ENCOURAGED**

207. Automotive key components manufacturing and key technology research and development: dual clutch transmission (DCT), stepless automatic transmission (CVT), electronic control mechanical transmission (AMT), gasoline engine turbocharger, viscous coupling (fourwheel drive), Automatic transmission actuators (solenoid valves), hydraulic retarders, eddy current retarders, automotive airbag gas generators, fuel common rail injection technology (maximum injection pressure greater than 2000 Pa), variable cross-section turbocharging Technology (VGT), variable nozzle turbocharging technology (VNT), engine emission control devices to meet the emission standards of the

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intelligent torque management (ITM) systems and coupling components, steering-by-wire systems, diesel particulate filters (DPF), special axles for low-floor buses, energy-absorbing steering systems, inverter air conditioning system for large- and medium-sized passenger cars, special rubber auto accessories, and key parts of the above-mentioned components

2.汽车关键零部件制造及关键技术 研发:双离合器变速器(DCT)、 电控机械变速器(AMT)、汽油发 动机涡轮增压器、粘性连轴器(四 轮驱动用)、自动变速器执行器(电器、粘性连轴器(四轮驱动用)、 磁阀)、液力缓速器、电涡流缓速 器、汽车安全气囊用气体发生器、 燃油共轨喷射技术 (最大喷射压力 大于 2000 帕)、可变截面涡轮增 压技术(VGT)、可变喷嘴涡轮增 压技术(VNT)、达到中国 V 阶段 污染物排放标准的发动机排放控制 装置、智能扭矩管理系统(ITM) 及耦合器总成、线控转向系统、柴 油机颗粒捕捉器、低地板大型客车 专用车桥、吸能式转向系统、大中 型客车变频空调系统、汽车用特种

intelligent torque management (ITM) systems and coupling components, steering-by-wire systems, diesel particulate filters (DPF), special axles for low-floor buses, energy-absorbing steering systems, inverter air conditioning system for large- and medium-sized passenger cars, special rubber auto accessories, and key parts of the above-mentioned components 205.汽车关键零部件制造及关键技

术研发: 双离合器变速器

(DCT)、电控机械变速器 (AMT)、汽油发动机涡轮增压 自动变速器执行器(电磁阀)、液力 缓速器、电涡流缓速器、汽车安全 气囊用气体发生器、燃油共轨喷射 技术(最大喷射压力大于2000 帕)、可变截面涡轮增压技术 (VGT)、可变喷嘴涡轮增压技术 (VNT)、达到中国 V 阶段污染物 排放标准的发动机排放控制装置、 智能扭矩管理系统(ITM)及耦合 器总成、线控转向系统、柴油机颗 粒捕捉器、低地板大型客车专用车 桥、吸能式转向系统、大中型客车

Chinese V stage, intelligent torque management system (ITM) and coupler assembly, wire steering system, particle capture Large and medium-sized passenger car inverter air conditioner system, automotive special rubber parts, as well as the parts of the key parts, parts 206. 汽车关键零部件制造及关键技 术研发: 双离合器变速器 (DCT)、无级自动变速器 (CVT)、电控机械变速器 (AMT)、汽油发动机涡轮增压 器、粘性连轴器(四轮驱动用)、 自动变速器执行器(电磁阀)、液力 缓速器、电涡流缓速器、汽车安全 气囊用气体发生器、燃油共轨喷射 技术(最大喷射压力大于 2000 帕)、可变截面涡轮增压技术 (VGT)、可变喷嘴涡轮增压技术 (VNT)、达到中国 V 阶段污染物 排放标准的发动机排放控制装置、 智能扭矩管理系统(ITM)及耦合 器总成、线控转向系统、颗粒捕捉 器、低地板大型客车专用车桥、吸

能式转向系统、大中型客车变频空

Chinese V stage, intelligent torque management system (ITM) and coupler assembly, wire steering system, particle capture Large and medium-sized passenger car inverter air conditioner system, automotive special rubber parts, as well as the parts of the key parts 207. 汽车关键零部件制造及关键技 术研发: 双离合器变速器 (DCT)、无级自动变速器 (CVT)、电控机械变速器 (AMT)、汽油发动机涡轮增压 器、粘性连轴器(四轮驱动用)、 自动变速器执行器(电磁阀)、液力 缓速器、电涡流缓速器、汽车安全 气囊用气体发生器、燃油共轨喷射 技术 (最大喷射压力大于 2000 帕)、可变截面涡轮增压技术 (VGT)、可变喷嘴涡轮增压技术 (VNT)、达到中国V阶段污染物 排放标准的发动机排放控制装置、 智能扭矩管理系统(ITM)及耦合 器总成、线控转向系统、颗粒捕捉 器、低地板大型客车专用车桥、吸 能式转向系统、大中型客车变频空

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橡胶配件,以及上述零部件的关键 变频空调系统、汽车用特种橡胶配 调系统、汽车用特种橡胶配件,以 调系统、汽车用特种橡胶配件,以 件,以及上述零部件的关键零件、 零件、部件 及上述零部件的关键零件、部件 及上述零部件的关键零件、部件 部件 **ENCOURAGED ENCOURAGED ENCOURAGED ENCOURAGED** 3. Manufacture and R&D of 206. Manufacture and R&D of 207. Automotive electronics 208. Automotive electronics electronic equipment for autos: electronic equipment for autos: manufacturing and research and manufacturing and research and electronic control systems for electronic control systems for development: engine and chassis development: engine and chassis electronic control systems and key engines and chassis and key parts; engines and chassis and key parts; electronic control systems and key vehicle electronic technology (car vehicle electronic technology (car components, automotive electronics components, automotive electronics information systems [CIS] and information systems [CIS] and (automotive information systems and (automotive information systems and navigation systems); vehicle navigation systems); vehicle navigation systems), automotive navigation systems), automotive electronic bus and networking electronic bus and networking electronics bus network technology, electronics bus network technology, technology (limited to EJVs); input technology (limited to EJVs); input electronic control system input electronic control system input (sensors and sampling systems) and (sensor and sampling system) output (sensors and sampling systems) and (sensor and sampling system) output output (actuators) components for output (actuators) components for (implementation Device, electronic (implementation Device, electric electronic control systems; electronic electronic control systems; electronic controllers for electric-powered power steering system electronic controllers for electric-powered controllers for electric-powered steering devices, embedded controller, embedded electronic steering devices (limited to EJVs); steering devices (limited to EJVs); electronic integrated system, integrated system, electrically integrated electronic circuit systems integrated electronic circuit systems; electrically controlled air spring, controlled air spring, electronic (limited to CJVs and EJVs); electronically controlled air springs; electronic control suspension system control suspension system, electronic electronically controlled air springs; electronically controlled suspension electronic valve system device, valve system device, electronic electronically- controlled suspension systems, electronic valve system electronic combination instrument, combination instrument, ABS / TCS / systems, electronic valve system fixtures, electronic instrument ABS / TCS / ESP system, circuit brake ESP system, circuit brake system fixtures, electronic instrument clusters, ABS/TCS/ESP systems, circuit system (TPW), vehicle fault diagnosis (TPW), vehicle fault diagnosis (OBD), clusters, ABS/TCS/ESP systems, circuit braking systems (BBW), transmission (OBD), engine anti-theft system, engine anti-theft system, automatic braking systems (BBW), transmission automatic collision avoidance system, electronic control units (TCU), tire collision avoidance system, electronic control units (TCU), tire pressure monitoring systems (TPMS), automobile, motorcycle test and automobile, motorcycle test and pressure monitoring systems (TPMS), on-board diagnostics (OBD), engine maintenance of the detection system maintenance of the detection system (TCW), transmission control unit on-board diagnostics (OBD), engine anti-theft systems, automatic (TCW), transmission control unit anti-theft systems, automatic collision-avoidance systems, testing (TCU), tire pressure monitoring (TCU), tire pressure monitoring and maintenance systems for collision-avoidance systems, testing system system and maintenance systems for automobiles and motorcycles 207. 汽车电子装置制造与研发:发 208. 汽车电子装置制造与研发:发

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automobiles and motorcycles 206.汽车电子装置制造与研发:发 3.汽车电子装置制造与研发:发动 动机和底盘电子控制系统及关键零 机和底盘电子控制系统及关键零部 部件,车载电子技术(汽车信息系 件,车载电子技术(汽车信息系统 统和导航系统),汽车电子总线网 和导航系统),汽车电子总线网络 络技术(限于合资),电子控制系 技术(限于合资),电子控制系统 统的输入(传感器和采样系统)输 的输入(传感器和采样系统)输出 出(执行器)部件,电动助力转向 (执行器)部件,电动助力转向系 系统电子控制器(限于合资),嵌 统电子控制器(限于合资),嵌入 入式电子集成系统、电控式空气弹 式电子集成系统(限于合资、合 簧,电子控制式悬挂系统,电子气 |作)、电控式空气弹簧,电子控制 门系统装置,电子组合仪表, 式悬挂系统,电子气门系统装置, ABS/TCS/ESP 系统, 电路制动系统 电子组合仪表, ABS/TCS/ESP系 (BBW),变速器电控单元 统,电路制动系统(BBW),变速 (TCU),轮胎气压监测系统 器电控单元(TCU),轮胎气压监 (TPMS),车载故障诊断仪 测系统(TPMS),车载故障诊断仪 (OBD),发动机防盗系统,自动 (OBD),发动机防盗系统,自动 避撞系统,汽车、摩托车型试验及 避撞系统,汽车、摩托车型试验及 维修用 检测系统 维修用检测系统 Revised: Deleted CJV and EJV requirements for "integrated electronic circuit systems"(嵌入式电 子集成系统)

动机和底盘电子控制系统及关键零 部件,车载电子技术(汽车信息系 | 统和导航系统 ) , 汽车电子总线网 络技术, 电子控制系统的输入(传 感器和采样系统)输出(执行器) 部件, 电动助力转向系统电子控制 器,嵌入式电子集成系统、电控式 空气弹簧,电子控制式悬挂系统, 电子气门系统装置,电子组合仪 表, ABS/TCS/ESP 系统, 电路制动 系统(BBW),变速器电控单元 (TCU),轮胎气压监测系统 (TPMS),车载故障诊断仪 (OBD),发动机防盗系统,自动 避撞系统,汽车、摩托车型试验及 维修用检测系统 Revised from 2015 Catalogue: Deleted EJV requirements for "automotive electronics bus network technology" (汽车电子总线网络技 术) and "electric power steering system electronic controller" (电动助 力转向系统电子控制器)

动机和底盘电子控制系统及关键零 |部件, 车载电子技术(汽车信息系 | 统和导航系统) , 汽车电子总线网 |络技术,电子控制系统的(传感器 和采样系统)输出(执行器)部 件,电动助力转向系统电子控制 器,嵌入式电子集成系统、电控式 空气弹簧,电子控制式悬挂系统, 电子气门系统装置,电子组合仪 表, ABS/TCS/ESP系统, 电路制动 系统(BBW),变速器电控单元 (TCU),轮胎气监测系统 (TPMS),车载故障诊断仪 (OBD),发动机防盗系统,自动 避撞系统,汽车、摩托车型试验及 维修用检测系统 Revised from 2015 Catalogue: Deleted EJV requirements for "automotive electronics bus network technology" (汽车电子总线网络技 术) and "electric power steering system electronic controller" (电动助 力转向系统电子控制器)

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4. Manufacture of key components of 207. Manufacture of key components 208. Battery management system,

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209. ENCOURAGED Battery management system, motor

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new-energy autos: Energy-type battery (energy density ≥ 110 Wh/kg, life cycle ≥ 2,000 times, foreign investment cannot exceed 50%), battery cathode material (capacity ≥ 150 mAh/g, life cycle of 2,000 times no less than 80% of the initial discharge capacity), battery separator (thickness 15-40 µm, porosity 40 -60%); battery management systems, electrical motor management systems, electric controls for electric vehicles; electric vehicle drive motor (peak power density ≥ 2.5 kW/kg, effective area: 65% efficiency of the work area ≥80%), automotive DC/DC (input voltage 100V-400V), highpower electronic devices (IGBT, voltage  $\geq$  600V, current  $\geq$  300A); plug-in hybrid electromechanical coupling drive system 4.新能源汽车关键零部件制造:能 量型动力电池(能量密度 ≥110Wh/kg,循环寿命≥2000次, 外资比例不超过 50%),电池正极材 外资比例不超过 50%),电池正极材 料 ( 比容量≥150mAh/g , 循环寿命 2000 次不低于初始放电容量的 80%), 电池隔膜(厚度 15-40μm,孔隙率 40%-60%);电池管 |40μm,孔隙率 40%-60%);电池管 理系统, 电机管理系统, 电动汽车 电控集成;电动汽车驱动电机(峰

of new-energy autos: Energy-type battery (energy density ≥ 110 Wh/kg, life cycle ≥ 2,000 times, foreign investment cannot exceed 50%), battery cathode material (capacity ≥ 150 mAh/g, life cycle of 2,000 times no less than 80% of the initial discharge capacity), battery separator (thickness 15-40 µm, porosity 40 -60%); battery management systems, electrical motor management systems, electric controls for electric vehicles; electric vehicle drive motor (peak power density ≥ 2.5 kW/kg, effective area: 65% efficiency of the work area ≥80%), automotive DC/DC (input voltage 100V-400V), highpower electronic devices (IGBT, voltage  $\geq$  600V, current  $\geq$  300A); plug-in hybrid electromechanical coupling drive system 207.新能源汽车关键零部件制造: 能量型动力电池 (能量密度 ≥110Wh/kg,循环寿命≥2000次, 料 ( 比容量≥150mAh/g , 循环寿命 2000 次不低于初始放电容量的 80%), 电池隔膜(厚度 15-理系统, 电机管理系统, 电动汽车 电控集成;电动汽车驱动电机(峰

motor management system, electric vehicle electronic control integration; electric vehicle drive motor (peak power density  $\geq 2.5$ kW), the battery power supply, (Input voltage 100V-400V), high-power electronic devices (IGBT, voltage level ≥ 600V, current ≥ 300A); plug-in hybrid Power electromechanical coupling drive system

208. 新能源汽车关键零部件制造: 电池隔膜(厚度 15-40µm, 孔隙率 40%-60%);电池管理系统,电机 管理系统, 电动汽车电控集成; 电 动汽车驱动电机(峰值功率密度) ≥2.5kW/kg,高效区:65%工作区效 率≥80%), 车用 DC/DC(输入电压 100V-400V),大功率电子器件 (IGBT, 电压等级≥600V, 电流 ≥300A);插电式混合动力机电耦 合驱动系统

Revised from 2015 Catalogue

management system, electric vehicle electronic control integration; electric vehicle drive motor (peak power density ≥ 2.5kW), the battery power supply, (Input voltage 100V-400V), high-power electronic devices (IGBT, voltage level  $\geq$  600V, current  $\geq$  300A); plug-in hybrid Power electromechanical coupling drive system production of fuel cell low platinum catalyst, composite film, membrane electrode, humidifier control, Valve, air compressor, hydrogen circulation pump, 70MPa hydrogen bottles

209. 新能源汽车关键零部件制造: 电池隔膜(厚度 15-40µm,孔隙率 40%-60%);电池管理系统,电机 管理系统, 电动汽车电控集成; 电 动汽车驱动电机 (峰值功率密度 ≥2.5kW/kg, 高效区:65%工作区效 率≥80%), 车用 DC/DC(输入电压 100V-400V),大功率电子器件 (IGBT, 电压等级≥600V, 电流 ≥300A);插电式混合动机驱动系 统;燃料电池低铂催化剂、复合 膜、膜电极、增湿器控制阀、空压 机、氢气循环泵、70MPa 氢瓶

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Revised from 2015 Catalogue 值功率密度≥2.5kW/kg,高效区: 值功率密度≥2.5kW/kg,高效区: Also Revised from draft 2016 65%工作区效率≥80%), 车用 65%工作区效率≥80%),车用 Catalogue: Added production of fuel DC/DC(输入电压 100V-400V), DC/DC(输入电压 100V-400V), cell low platinum catalyst, composite film, membrane electrode, humidifier 大功率电子器件(IGBT,电压等级 大功率电子器件(IGBT,电压等级 control valve, air compressor, ≥600V, 电流≥300A); 插电式混合 ≥600V, 电流≥300A); 插电式混合 hydrogen circulation pump, 70MPa hydrogen bottles 动力机电耦合驱动系统 动力机电耦合驱动系统 (十九)汽车制造业 (19.) (二十)铁路、船舶、航空航天和其他运输设备制造业 (20.) Railway, ship aerospace, and other Vehicle manufacturing (Continued) transportation device manufacturing **ENCOURAGED ENCOURAGED ENCOURAGED ENCOURAGED** 5. Production of critical spare parts 208. Production of motorcycle engine 209. Production of motorcycle engine 210. Production of motorcycle engine for motorcycles with high-volume emission control devices that comply emission control devices that comply emission control devices that comply engine displacement (displacement with the high displacement in the with the high displacement in the with the high displacement in the of more than 250 ml): motorcycle China Motorcycle Phase III Pollutant China Motorcycle Phase III Pollutant China Motorcycle Phase 4 Pollutant electronically controlled fuel injection Emission Standards (displacement of Emission Standards (displacement of Emission Standards (displacement of technology (limited to CJVs and EJVs); more than 250 ml) more than 250 ml) more than 250 ml) engine emission control devices that 208.达到中国摩托车 Ⅲ 阶段污染物 209.达到中国摩托车 III 阶段污染物 210. 达到中国摩托车第四阶段污染 comply with China Motorcycle Phase 排放标准的大排量(排量> 排放标准的大排量(排量> 物排放标准的大排量(排量> **III Pollutant Emission Standards** 5.大排量(排量 > 250ml)摩托车关 250ml)摩托车发动机排放控制装 250ml)摩托车发动机排放控制装 250ml)摩托车发动机排放控制装 置制造 置制造 置制造 键零部件制造:摩托车电控燃油喷 Revised from 2011 Catalogue: Revised from 2015 Catalogue and 射技术(限于合资、合作)、达到 Deleted "production of critical spare 2016 Draft: Updated pollution 中国摩托车Ⅲ阶段污染物排放标准 parts for motorcycles with highstandard for motorcycle emmissions volume engine displacement to phase 4, no change in language 的发动机排放控制装置 (displacement of more than 250 ml): motorcycle electronically controlled

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	fuel injection technology (limited to		
	CJVs and EJVs)"		
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6. Railway transportation equipment	209. Railway transportation		
(limited to CJVs and EJVs): R&D,	equipment (limited to CJVs and EJVs)		
design, and manufacture of vehicles	209.轨道交通运输设备(限于合		
and critical parts (traction drive	资、合作)		
systems, control systems, brake			
systems) for high-speed railways,	Revised from 2011 Catalogue:		
railroad passenger lines, inter-city	Removed "R&D, design, and manufacture of vehicles and critical		
railways, mainline railways, and	parts (traction drive systems, control		
urban railway transportation; R&D,	systems, brake systems) for high-		
design, and manufacture of	speed railways, railroad passenger		
passenger service facilities and	lines, inter-city railways, mainline		
equipment for high-speed railways, railroad passenger lines, inter-city	railways, and urban railway		
railways, and urban railways; design	transportation; R&D, design, and		
and R&D of information systems;	manufacture of passenger service		
R&D, design, and manufacture of rail	facilities and equipment for high-		
and bridges in high-speed railways,	speed railways, railroad passenger		
railroad passenger lines and inter-city	lines, inter-city railways, and urban		
railways; R&D, design, and	railways; design and R&D of		
manufacture of rapid transit	information systems; R&D, design,		
communications and signaling	and manufacture of rail and bridges		
systems; manufacture of equipment	in high-speed railways, railroad		
and devices on electrified railways;	passenger lines and inter-city		
R&D of railway noise- and vibration-	railways; R&D, design, and		
control technology; manufacture of	manufacture of rapid transit		
equipment for railroad passenger car	communications and signaling		
waste discharge; and manufacture of	systems; manufacture of equipment		
equipment for monitoring railway	and devices on electrified railways;		
transportation safety	R&D of railway noise- and vibration-		
6.轨道交通运输设备(限于合资、	control technology; manufacture of equipment for railroad passenger car		
合作):高速铁路、铁路客运专	waste discharge; and manufacture of		
	waste discharge, and manaracture of		

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线、城际铁路、干线铁路及城市轨道交通运输设备的整车和关键零部件(牵引传动系统、控制系统、制动系统)的研发、设计与制造;高速铁路、铁路客运专线、城际铁路及城市轨道交通乘客服务设施和设计与制造,信息化建设中有关信息系统的设计与研发、设计与研发、设计与制造,设计与制造,设计与制造,轨道交通运输通信信号系统的研发、设计与制造,电气化铁路设备和器材制造、铁路客车排污设备制技术与研发、铁路客车排污设备制造、铁路运输安全监测设备制造、铁路运输安全监测设备制造、铁路运输安全监测设备制造、铁路运输安全监测设备制造、铁路运输安全监测设备制造、铁路运输安全监测设备制造、铁路运输安全监测设备制造	equipment for monitoring railway transportation safety"		
ENCOURAGED 7. Design, manufacture, and maintenance of civil aviation airplanes: airplanes for main and branch lines (Chinese majority control), planes for general use (limited to CJVs and EJVs) 7.民用飞机设计、制造与维修:干线、支线飞机(中方控股),通用飞机(限于合资、合作)	ENCOURAGED 210. Design, manufacture, and maintenance of civil aviation airplanes: trunk-line aircraft, regional aircraft (Chinese majority control), planes for general use (limited to CJVs and EJVs) 210. 民用飞机设计、制造与维修:干线、支线飞机(中方控股),通用飞机(限于合资、合作)	ENCOURAGED 210. Civil aircraft design, manufacture and maintenance: trunk-line aircraft, regional aircraft, general aircraft 210. 民用飞机设计、制造与维修: 干线、支线飞机,通用飞机 Revised from 2015 Catalogue: Deleted Chinese majority control requirements for trunk-line	ENCOURAGED 211. Civil aircraft design, manufacture and maintenance: trunk, regional aircraft, general aircraft 211. 民用飞机设计、制造与维修: 干线、支线飞机,通用飞机 Revised from 2015 Catalogue: Deleted Chinese majority control requirements for trunk-line

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			aircraft and regional aircraft, but the requirements remain in Restricted List Item 9; Deleted CJVs and EJVs requirements for general aircraft, but the requirements were remain in Restricted List Item 10
		RESTRICTED  9. Trunk, regional aircraft design,manufacturing and maintenance, 3-ton and above helicopter design and manufacturing, ground, manufacture of aircraft for ground or water surface effects; design and manufacture of unmanned aerial vehicle and aerostatics (Chinese majority control)  9. 干线、支线飞机设计、制造与维修,3 吨级及以上直升机设计与制造,地面、水面效应航行器制造及 无人机、浮空器设计与制造(中方 控股)  10. General aircraft design,	RESTRICTED  9. Trunk, regional aircraft design, manufacturing and maintenance, 3-ton and above helicopter design and manufacturing, ground, manufacture of aircraft for ground or water surface effects; design and manufacture of unmanned aerial vehicle and aerostatics (Chinese majority control) 9. 干线、支线飞机设计、制造与维修,3 吨级及以上直升机设计与制造,地面、水面效应航行器制造及 无人机、浮空器设计与制造(中方 控股) 10. General aircraft design,
		manufacture and maintenance (limited to joint ventures, cooperation)  10. 通用飞机设计、制造与维修 (限于合资、合作)	manufacture and maintenance (limited to joint ventures, cooperation)  10. 通用飞机设计、制造与维修 (限于合资、合作)
ENCOURAGED 8. Manufacture and maintenance of	ENCOURAGED 211. Manufacture and maintenance of spare parts for civil aviation	ENCOURAGED 211. Manufacture and maintenance of spare parts for civil aviation	ENCOURAGED 211. Manufacture and maintenance of spare parts for civil aviation

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		1	
spare parts for civil aviation airplanes	'	airplanes	airplanes
8.民用飞机零部件制造与维修	211.民用飞机零部件制造与维修	211.民用飞机零部件制造与维修	211.民用飞机零部件制造与维修
ENCOURAGED  9. Design and manufacture of civil aviation helicopters: 3 tons and above (Chinese majority control), less than 3 tons (limited to CJVs and EJVs)  9.民用直升机设计与制造:3 吨级及以上(中方控股),3 吨级以下(限于合资、合作)	ENCOURAGED 212. Design and manufacture of civil aviation helicopters (3 tons and above require Chinese side to hold a controlling stake) 212.民用直升机设计与制造(3 吨级及以上需中方控股) Revised from 2011 Catalogue: Deleted "less than 3 tons (limited to CIVs and EJVs)"	ENCOURAGED 212. Design and manufacture of civil helicopter 212. 民用直升机设计与制造 Revised from 2015 Catalogue: Deleted "(3 tons and above require Chinese side to hold a controlling stake)"	ENCOURAGED 213. Design and manufacture of civil helicopter 213. 民用直升机设计与制造 Revised from 2015 Catalogue: Deleted "(3 tons and above require Chinese side to hold a controlling stake)"
ENCOURAGED 10. Manufacture of spare parts for civil aviation helicopter 10.民用直升机零部件制造	ENCOURAGED 213. Manufacture of spare parts for civil aviation helicopters 213.民用直升机零部件制造	ENCOURAGED 213. Manufacture of spare parts for civil aviation helicopters 213.民用直升机零部件制造	ENDCOURAGED 214. Manufacture of spare parts for civil aviation helicopters 214. 民用直升机零部件制造
ENCOURAGED  11. Manufacture of aircraft for ground or water surface effects (Chinese majority control)  11.地面、水面效应飞机制造(中方控股)	ENCOURAGED 214. Manufacture of airplanes for ground or water surface effects; design and manufacture of unmanned aerial vehicle and aerostatics (Chinese majority control) 214.地面、水面效应飞机制造及无人机、浮空器设计与制造(中方控股) Revised from 2011 Catalogue: Combined 11 and 12 from 2015 Catalogue	ENCOURAGED 214. Manufacture of aircraft for ground or water surface effects; design and manufacture of unmanned aerial vehicle and aerostatics 214. 地面、水面效应航行器制造及无人机、浮空器设计与制造 Revised from 2015 Catalogue: Deleted "Chinese majority control" requirements, but the requirements remain in the Restricted List at Item 9; replaced "airplanes" (飞机) with "aircraft" (航行器)	ENCOURAGED 215. Ground, surface effect aircraft manufacturing and unmanned aerial vehicles, aircraft design and manufacturing 215. 地面、水面效应航行器制造及无人机、浮空器设计与制造 Revised from 2015 Catalogue: Deleted "Chinese majority control" requirements, but the requirements remain in the Restricted List at Item 9; replaced "airplanes" (飞机) with "aircraft" (航行器)

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ENCOURAGED 12. Design and manufacture of unmanned aircraft and aerostats (Chinese majority control)		RESTRICTED  9. Trunk, regional aircraft design,manufacturing and maintenance, 3-ton and above helicopter design and manufacturing, ground, manufacture of aircraft for ground or water surface effects; design and manufacture of unmanned aerial vehicle and aerostatics (Chinese majority control)  9. 干线、支线飞机设计、制造与维修,3 吨级及以上直升机设计与制造,地面、水面效应航行器制造及 无人机、浮空器设计与制造(中方 控股)	RESTRICTED  9. Trunk, regional aircraft design, manufacturing and maintenance, 3-ton and above helicopter design and manufacturing, ground, manufacture of aircraft for ground or water surface effects; design and manufacture of unmanned aerial vehicle and aerostatics (Chinese majority control) 9. 干线、支线飞机设计、制造与维修,3 吨级及以上直升机设计与制造,地面、水面效应航行器制造及无人机、浮空器设计与制造(中方 控股)
12.无人机、浮空器设计与制造(中 方控股)			
ENCOURAGED  13. Design, manufacture, and maintenance of airplane engines and critical parts and auxiliary power systems (limited to CJVs and EJVs)  13.航空发动机及零部件、航空辅助	maintenance of airplane engines and critical parts and auxiliary power systems	ENCOURAGED 215. Design, manufacture, and maintenance of airplane engines and critical parts and auxiliary power systems 215. 航空发动机及零部件、航空辅	ENCOURAGED 216. Design, manufacture, and maintenance of airplane engines and critical parts and auxiliary power systems 216.航空发动机及零部件、航空辅
动力系统设计、制造与维修(限于合资、合作)	助动力系统设计、制造与维修 Revised from 2011 Catalogue: Deleted "limited to CJVs and EJVs"	助动力系统设计、制造与维修	助动力系统设计、制造与维修

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ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
14. Design and manufacture of civil	216. Design and manufacture of civil	216. Design and manufacture of civil	217. Design and manufacture of civil
aviation carrier-borne equipment	aviation carrier-borne equipment	aviation carrier-borne equipment	aviation carrier-borne equipment
(limited to CJVs and EJVs)	216.民用航空机载设备设计与制造	216.民用航空机载设备设计与制造	217. 民用航空机载设备设计与制造
14.民用航空机载设备设计与制造	Revised from 2011 Catalogue:		
(限于合资、合作)	Deleted "limited to CJVs and EJVs"		
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
15. Manufacture of aviation ground	217. Manufacture of aviation ground	217. Manufacture of aviation ground	218. Manufacture of aviation ground
facilities: civil airport facilities, civil			
airport operation support facilities,			
ground facilities for flight			
experimentation, flight simulation	experimentation, flight simulation	experimentation, flight simulation	experimentation, flight simulation
and training equipment, equipment			
for aeronautic trials and			
measurement, aviation	measurement, aviation	measurement, aviation	measurement, aviation
experimentation ground facilities,	experimentation ground facilities,	experimentation ground facilities,	experimentation ground facilities,
comprehensive testing equipment for	comprehensive testing equipment for	comprehensive testing equipment for	
aircraft equipment, special	aircraft equipment, special	aircraft equipment, special	aircraft equipment, special
equipment for aircraft	equipment for aircraft	equipment for aircraft	equipment for aircraft
manufacturing, special equipment for			
trial runs for aeronautic materials,			
ground receiving and applied			
equipment for civil aviation			
instruments, on-ground testing	instruments, on-ground testing	instruments, on-ground testing	instruments, on-ground testing
equipment for on-board rockets,			
mechanical and environmental	mechanical and environmental	mechanical and environmental	mechanical and environmental
testing equipment for on-board			
rockets	rockets	rockets	rockets
15.航空地面设备制造:民用机场设	217.航空地面设备制造:民用机场	217.航空地面设备制造:民用机场	218. 航空地面设备制造:民用机场
施、民用机场运行保障设备、飞行	设施、民用机场运行保障设备、飞	设施、民用机场运行保障设备、飞	设施、民用机场运行保障设备、飞
试验地面设备、飞行模拟与训练设	行试验地面设备、飞行模拟与训练	行试验地面设备、飞行模拟与训练	行试验地面设备、飞行模拟与训练
备、航空测试与计量设备、航空地	设备、航空测试与计量设备、航空	设备、航空测试与计量设备、航空	设备、航空测试与计量设备、航空

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面试验设备、机载设备综合测试设备、航空制造专用设备、航空材料试制专用设备、民用航空器地面接收及应用设备、运载火箭地面测试设备、运载火箭力学及环境实验设备	地面试验设备、机载设备综合测试设备、航空制造专用设备、航空制造专用设备、航空材料试制专用设备、民用航空器地面接收及应用设备、运载火箭地面测试设备、运载火箭力学及环境实验设备	地面试验设备、机载设备综合测试设备、航空制造专用设备、航空制造专用设备、航空材料试制专用设备、民用航空器地面接收及应用设备、运载火箭地面测试设备、运载火箭力学及环境实验设备	地面试验设备、机载设备综合测试设备、航空制造专用设备、航空材料试制专用设备、民用航空器地面接收及应用设备、运载火箭地面测试设备、运载火箭力学及环境实验设备
ENCOURAGED 16. Manufacture of optical, mechanical, and electric products for spacecraft; temperature control product for spacecraft; satellite payload testing equipment; and structural and mechanism-based products for spacecraft 16.航天器光机电产品、航天器温控 产品、星上产品检测设备、航天器 结构与机构产品制造	ENCOURAGED 218. Manufacture of optical, mechanical, and electric products for spacecraft; temperature control product for spacecraft; outer space product testing equipment; and structural and mechanism-based products for spacecraft 218.航天器光机电产品、航天器温 控产品、星上产品检测设备、航天 器结构与机构产品制造	Deleted; "outer space product testing equipment" moved to Item 220 of Encouraged List	Deleted; "outer space product testing equipment" moved to Item 220 of Encouraged List
	See Encouraged Item 261 ENCOURAGED 261. Design and manufacture of civil satellites, and manufacture of payloads of civil satellites (Chinese majority control) 261. 民用卫星设计与制造、民用卫星设计与制造、民用卫星有效载荷制造(中方控股)	ENCOURAGED 218. Civil satellite design and manufacturing, civil satellite payload manufacturing 218. 民用卫星设计与制造,民用卫星设计与制造,民用卫星有效载荷制造 Revised from 2015 Catalogue: Deleted Chinese majority control requirements	ENCOURAGED 219. Civil satellite design and manufacturing, civil satellite payload manufacturing 219. 民用卫星设计与制造,民用卫星有效载荷制造 Revised from 2015 Catalogue: Deleted Chinese majority control requirements

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ENCOURAGED 17. Manufacture of light gas-turbine engines 17.轻型燃气轮机制造	ENCOURAGED 219. Manufacture of light gas-turbine engines 219.轻型燃气轮机制造	Deleted	Deleted
See text at Encouraged (二十一) 通信设备、计算机及其他电子设备 制造业(21) Communication equipment, computer, and other electronics manufacturing industry in 2011 Catalogue 22. Manufacture of parts for civil satellites 22. 民用卫星零部件制造	See text at 262. in 2015 Catalogue 262. Manufacture of parts for civil satellites 262. 民用卫星零部件制造	ENCOURAGED 219. Manufacture of civilian satellite components 219. 民用卫星零部件制造	ENCOURAGED 220. Manufacture of civilian satellite components 220. 民用卫星零部件制造
	See Encouraged Item 218 ENCOURAGED 218. Manufacture of optical, mechanical, and electric products for spacecraft; temperature control product for spacecraft; outer space product testing equipment; and structural and mechanism-based products for spacecraft 218. 航天器光机电产品、航天器温 控产品、星上产品检测设备、航天 器结构与机构产品制造	ENCOURAGED 220. Outer space product testing equipment manufacturing 220. 星上产品检测设备制造	ENCOURAGED 221. Outer space product testing equipment manufacturing 221. 星上产品检测设备制造
ENCOURAGED 18. Design of cruise ship and deep ocean (deeper than 3,000 meters) engineering devices (limited to EJVs and CJVs) 18.豪华邮轮及深水(3000 米以	ocean (deeper than 3,000 meters) engineering devices 220.豪华邮轮及深水(3000 米以 上)海洋工程装备的设计	ENCOURAGED  221. Design of cruise ship and deep ocean (deeper than 3,000 meters) engineering devices  221.豪华邮轮及深水(3000 米以上)海洋工程装备的设计	ENCOURAGED 222. Design of cruise ship and deep ocean (deeper than 3,000 meters) engineering devices 222. 豪华邮轮及深水(3000 米以上)海洋工程装备的设计

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上)海洋工程装备的设计(限于合资、合作)	Revised from 2011 Catalogue: Deleted "limited to EJVs and CJVs"		
ENCOURAGED  19. Repair and manufacture of oceanic engineering equipment (including modules) (Chinese majority control)  19.海洋工程装备(含模块)的制造与修理(中方控股)	ENCOURAGED 221. Repair and manufacture of oceanic engineering equipment (including modules) (Chinese majority control) 221.海洋工程装备(含模块)的制造与修理(中方控股)	Deleted	Deleted
ENCOURAGED 20. Design of low- and medium-speed diesel engines and related parts for ships (limited to CJVs and EJVs) 20.船舶低、中速柴油机及其零部件的设计(限于合资、合作)	speed diesel engines and related parts for ships 222.船舶低、中速柴油机及其零部	ENCOURAGED 222. Design of low- and medium- speed diesel engines and related parts for ships 222.船舶低、中速柴油机及其零部 件的设计	ENCOURAGED 223. Design of low- and medium- speed diesel engines and related parts for ships 223. 船舶低、中速柴油机及其零部 件的设计
ENCOURAGED 21. Manufacture of low- and medium-speed diesel engines and related parts for ships (Chinese side must hold the largest controlling interest) 21.船舶低、中速柴油机及曲轴的制造(中方控股)	ENCOURAGED 223. Manufacture of low- and medium-speed diesel engines and related parts for ships (Chinese side must hold the largest controlling interest) 223.船舶低、中速柴油机及曲轴的 制造(中方控股)	Deleted	Deleted
ENCOURAGED  22. Design and manufacture of machinery for ship cabins and decks (Chinese side must hold the largest	224. Design and manufacture of	ENCOURAGED 223. Design of ship chamber machinery	ENCOURAGED 224. Design of ship chamber machinery

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relative controlling interest) 22.船舶舱室机械的设计与制造(中方相对控股)	224.船舶舱室机械的设计与制造 Revised from 2011 Catalogue: Deleted "Chinese side must hold the largest relative controlling interest"	223. 船舶舱室机械的设计 Revised from 2015 Catalogue: Deleted "manufacture"	224. 船舶舱室机械的设计 Revised from 2015 Catalogue: Deleted "manufacture"
ENCOURAGED 23. Design and manufacture of ship communication and navigation equipment: ship communications system equipment, ship electronic navigation equipment, ship radar, gyrocompass-driven autopilot functions, and ship public broadcasting system for internal use 23.船舶通讯导航设备的设计与制造:船舶通信系统设备、船舶电子导航设备、船用雷达、电罗经自动舵、船舶内部公共广播系统等	ENCOURAGED 225. Design and manufacture of ship communication and navigation equipment: ship communications system equipment, ship electronic navigation equipment, ship radar, gyrocompass-driven autopilot functions, and ship public broadcasting system for internal use 225.船舶通讯导航设备的设计与制造:船舶通信系统设备、船舶电子导航设备、船用雷达、电罗经自动舵、船舶内部公共广播系统等	ENCOURAGED 224. Design of ship communication and navigation equipment 224. 船舶通讯导航设备的设计 Revised from 2015 Catalogue: Deleted "manufacture"; Deleted specific elaborations of "ship communication and navigation equipment"	ENCOURAGED 225. Design of ship communication and navigation equipment 225. 船舶通讯导航设备的设计 Revised from 2015 Catalogue: Deleted "manufacture"; Deleted specific elaborations of "ship communication and navigation equipment"
ENCOURAGED  24. Manufacture and design of yachts (limited to CJVs and EJVs)  24.游艇的设计与制造(限于合资、	ENCOURAGED  226. Manufacture and design of yachts  226.游艇的设计与制造  Revised from 2011 Catalogue:  Deleted "limited to CJVs and EJVs"	ENCOURAGED 225. Yacht design 225. 游艇的设计 Revised from 2015 Catalogue: Deleted "Manufacture of yacht"	ENCOURAGED 226. Yacht design 226. 游艇的设计 Revised from 2015 Catalogue: Deleted "Manufacture of yacht"
(二十) 电气机械及器材制造业 (20) Power generating machinery and equipment manufacturing	(二十一)电气机械和器材制造业	(21) Power generating machinery and	d equipment manufacturing
ENCOURAGED  1. Manufacture of key auxiliary	ENCOURAGED 227. Manufacture of key auxiliary	ENCOURAGED 226. Manufacture of key auxiliary	ENCOURAGED 227. Manufacture of key auxiliary

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devices for supercritical thermal power plants exceeding 1 million kW (limited to EJVs or CJVs): safety valves and control valves 1.100 万千瓦超超临界火电机组用 关键辅机设备制造(限于合资、合作):安全阀、调节阀	devices for supercritical thermal power plants exceeding 1 million kW: safety valves and control valves 227.100 万千瓦超超临界火电机组用关键辅机设备制造:安全阀、调节阀 Revised from 2011 Catalogue: Deleted "limited to EJVs and CJVs"	devices for supercritical thermal power plants exceeding 1 million kW: safety valves and control valves 226.100 万千瓦超超临界火电机组用关键辅机设备制造:安全阀、调节阀	devices for supercritical thermal power plants exceeding 1 million kW: safety valves and control valves 227. 100 万千瓦超超临界火电机组用关键辅机设备制造:安全阀、调节阀
ENCOURAGED  2. Manufacture of sintering denitration technology equipment for coal-fired power plants and steel industry  2.燃煤电站、钢铁行业烧结机脱硝技术装备制造	ENCOURAGED 228. Manufacture of sintering denitration technology equipment for coal-fired power plants and steel industry 228.燃煤电站、钢铁行业烧结机脱 硝技术装备制造	ENCOURAGED 227. Steel industry sintering machine denitrification technology equipment manufacturing 227. 钢铁行业烧结机脱硝技术装备制造 Revised from 2015 Catalogue: Deleted sintering denitration technology equipment for coal-fired power plants	ENCOURAGED 228. Steel industry sintering machine denitrification technology equipment manufacturing 228. 钢铁行业烧结机脱硝技术装备制造 Revised from 2015 Catalogue: Deleted sintering denitration technology equipment for coal-fired power plants
ENCOURAGED 3. Design and manufacture of sealing elements for thermal power equipment 3.火电设备的密封件设计、制造	ENCOURAGED 229. Design and manufacture of sealing elements for thermal power equipment 229.火电设备的密封件设计、制造	ENCOURAGED 228. Design and manufacture of sealing elements for thermal power equipment 228.火电设备的密封件设计、制造	ENCOURAGED 229. Design and manufacture of sealing elements for thermal power equipment 229. 火电设备的密封件设计、制造
ENCOURAGED  4. Manufacture of large-scale casting and forging parts for equipment used in coal-fired power plants and hydropower stations  4. 燃煤电站、水电站设备用大型铸	ENCOURAGED 230. Manufacture of large-scale casting and forging parts for equipment used in coal-fired power plants and hydropower stations 230.燃煤电站、水电站设备用大型 铸锻件制造	ENCOURAGED 229. Manufacture of large-scale casting and forging parts for equipment used in coal-fired power plants and hydropower stations 229. 燃煤电站、水电站设备用大型 铸锻件制造	ENCOURAGED 230. Manufacture of large-scale casting and forging parts for equipment used in coal-fired power plants and hydropower stations 230. 燃煤电站、水电站设备用大型 铸锻件制造

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上变压器用出线装置、套管(交流500、750、1000 干伏,直流所有规格)、调压开关(交流500、750、1000 干伏有载、无载调压开关),直流输电用干式平波电抗器,±800 干伏直流输电用换流阀(水冷设备、直流场设备),符合欧盟RoHS 指令的电器触头材料及无Pb、Cd 的焊料			
ENCOURAGED 7. Manufacture of complete sets of equipment and key equipment for new-energy power generation: photovoltaic power generation, geothermal power generation, tidal power generation, wave power generation, refuse power generation, methane gas power generation, and wind power generation equipment at 2.5 MW or higher 7.新能源发电成套设备或关键设备制造:光伏发电、地热发电、潮汐发电、波浪发电、垃圾发电、沼气发电、2.5 兆瓦及以上风力发电设备	ENCOURAGED 233. Manufacture of complete sets of equipment and key equipment for new-energy power generation: photovoltaic power generation, geothermal power generation, tidal power generation, wave power generation, refuse power generation, and wind power generation equipment at 2.5 MW or higher 233.新能源发电成套设备或关键设备制造:光伏发电、地热发电、潮汐发电、波浪发电、垃圾发电、沼气发电、2.5 兆瓦及以上风力发电设备	ENCOURAGED 232. Manufacture of complete sets of equipment and key equipment for new-energy power generation: photovoltaic power generation, geothermal power generation, tidal power generation, wave power generation, refuse power generation, methane gas power generation, and wind power generation equipment at 2.5 MW or higher 232.新能源发电成套设备或关键设备制造:光伏发电、地热发电、潮汐发电、波浪发电、垃圾发电、沼气发电、2.5 兆瓦及以上风力发电设备	ENCOURAGED 233. Manufacture of complete sets of equipment and key equipment for new-energy power generation: photovoltaic power generation, geothermal power generation, tidal power generation, wave power generation, refuse power generation, methane gas power generation, and wind power generation equipment at 2.5 MW or higher 233. 新能源发电成套设备或关键设备制造:光伏发电、地热发电、潮汐发电、波浪发电、垃圾发电、潮方发电、波浪发电、垃圾发电、沼气发电、2.5 兆瓦及以上风力发电设备
ENCOURAGED 8. Manufacture of large pump storage units at 350 MW and higher rated power (limited to EJVs and	ENCOURAGED 234. Manufacture of large pump storage units at 350 MW and higher rated power: system integration	Deleted	Deleted

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CJVs): system integration design and simulation of auxiliary equipment such as pump-turbines and speedadjustment devices, large variable speed reversible pump-turbine units, power generation motor excitation devices, and other starter devices 8.额定功率 350MW 及以上大型抽水蓄能机组制造(限于合资、合作):水泵水轮机及调速器、大型变速可逆式水泵水轮机组、发电电动机及励磁、启动装置等附属设备	design and simulation of auxiliary equipment such as pump-turbines and speed-adjustment devices, large variable speed reversible pump-turbine units, power generation motor excitation devices, and other starter devices 234.额定功率 350MW 及以上大型抽水蓄能机组制造:水泵水轮机及调速器、大型变速可逆式水泵水轮机组、发电电动机及励磁、启动装置等附属设备 Revised from 2011 Catalogue: Deleted "limited to EJVs and CJVs"(限于合资、合作)for "manufacture of large pump storage units at 350 MW and higher rated power"(额定功率 350MW 及以上大型抽水蓄能机组制造)		
ENCOURAGED  9. Manufacture of Stirling power generation units  9.斯特林发电机组制造	ENCOURAGED 235. Manufacture of Stirling power generation units 235.斯特林发电机组制造	ENCOURAGED 233. Manufacture of Stirling power generation units 233. 斯特林发电机组制造	ENCOURAGED 234. Manufacture of Stirling power generation units 234. 斯特林发电机组制 造
ENCOURAGED  10. Development and manufacture of vertical and horizontal electric motors and associated drive systems	ENCOURAGED 236. Development and manufacture of vertical and horizontal electric motors and associated drive systems	ENCOURAGED 234. Development and manufacture of vertical and horizontal electric motors and associated drive systems	ENCOURAGED 235. Development and manufacture of vertical and horizontal electric motors and associated drive systems

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10.直线和平面电机及其驱动系统开 发与制造	236.直线和平面电机及其驱动系统 开发与制造	234.直线和平面电机及其驱动系统 开发与制造	235.直线和平面电机及其驱动系统 开发与制造
ENCOURAGED 11. Manufacture of high-tech green batteries: power nickel-hydrogen batteries, nickel-zinc batteries, silverzinc batteries, lithium ion batteries, solar cells, fuel cells, etc. (except for batteries for new energy vehicles). 11.高技术绿色电池制造:动力镍氢电池、锌镍蓄电池、锌镍蓄电池、键离子电池、太阳能电池、燃料电池等(新能源汽车能量型动力电池除外)	ENCOURAGED 237. Manufacture of high-tech green batteries: power nickel-hydrogen batteries, nickel-zinc batteries, silverzinc batteries, lithium ion batteries, solar cells, fuel cells, etc. (except for batteries for new energy vehicles). 237.高技术绿色电池制造:动力镍氢电池、锌镍蓄电池、锌银蓄电池、锂离子电池、太阳能电池、燃料电池等(新能源汽车能量型动力电池除外)	ENCOURAGED 235. Manufacture of high-tech green batteries: power nickel-hydrogen batteries, nickel-zinc batteries, silverzinc batteries, lithium ion batteries, solar cells, fuel cells, etc. (except for batteries for new energy vehicles). 235.高技术绿色电池制造:动力镍氢电池、锌镍蓄电池、锌银蓄电池、锌镍蓄电池、铁银蓄电池、燃料电池等(新能源汽车能量型动力电池除外)	ENCOURAGED 236. Manufacture of high-tech green batteries: power nickel-hydrogen batteries, nickel-zinc batteries, silverzinc batteries, lithium ion batteries, solar cells, fuel cells, etc. (except for batteries for new energy vehicles). 236.高技术绿色电池制造:动力镍氢电池、锌镍蓄电池、锌镍蓄电池、锌银蓄电池、铁银蓄电池、铁银蓄电池、铁路等(新能源汽车能量型动力电池除外)
ENCOURAGED  12. Manufacture of refrigeration and air conditioning compressors with direct current motor speed control technology, refrigeration and air conditioning compressor with natural CO2 refrigerant, and refrigeration and air conditioning equipment with application of renewable energy sources (air, water, and ground sources)  12.电动机采用直流调速技术的制冷空调用压缩机、采用 CO2 自然工质制冷空调压缩机、应用可再生能源	ENCOURAGED 238. Manufacture of refrigeration and air conditioning compressors with direct current motor speed control technology, refrigeration and air conditioning compressor with natural CO2 refrigerant, and refrigeration and air conditioning equipment with application of renewable energy sources (air, water, and ground sources) 238.电动机采用直流调速技术的制冷空调用压缩机、采用 CO2 自然工质制冷空调压缩机、应用可再生能	ENCOURAGED 236. Manufacture of refrigeration and air conditioning compressors with direct current motor speed control technology, refrigeration and air conditioning compressor with natural CO2 refrigerant, and refrigeration and air conditioning equipment with application of renewable energy sources (air, water, and ground sources) 236.电动机采用直流调速技术的制冷空调用压缩机、采用 CO2 自然工质制冷空调压缩机、应用可再生能	ENCOURAGED 237. Manufacture of refrigeration and air conditioning compressors with direct current motor speed control technology, refrigeration and air conditioning compressor with natural CO2 refrigerant, and refrigeration and air conditioning equipment with application of renewable energy sources (air, water, and ground sources) 237.电动机采用直流调速技术的制冷空调用压缩机、采用 CO2 自然工质制冷空调压缩机、应用可再生能

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(空气源、水源、地源)制冷空调	源(空气源、水源、地源)制冷空	源(空气源、水源、地源)制冷空	源(空气源、水源、地源)制冷空
设备制造	调设备制造	调设备制造	调设备制造
ENCOURAGED  13. Manufacture of solar-powered air conditioners, solar-powered heating systems, and solar-powered drying devices  13.太阳能空调、采暖系统、太阳能干燥装置制造	air conditioners, solar-powered heating systems, and solar-powered drying devices	ENCOURAGED 237. Manufacture of solar-powered air conditioners, solar-powered heating systems, and solar-powered drying devices 237.太阳能空调、采暖系统、太阳能干燥装置制造	ENCOURAGED 238. Manufacture of solar-powered air conditioners, solar-powered heating systems, and solar-powered drying devices 238.太阳能空调、采暖系统、太阳能干燥装置制造
ENCOURAGED  14. Manufacture of systems for thermal decomposition of dried biomass and biomass gasification devices  14.生物质干燥热解系统、生物质气化装置制造	ENCOURAGED 240. Manufacture of systems for thermal decomposition of dried biomass and biomass gasification devices 240.生物质干燥热解系统、生物质	ENCOURAGED 238. Manufacture of systems for thermal decomposition of dried biomass and biomass gasification devices 238.生物质干燥热解系统、生物质	ENCOURAGED 239. Manufacture of systems for thermal decomposition of dried biomass and biomass gasification devices 239.生物质干燥热解系统、生物质
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
15. Manufacture of alternating-	241. Manufacture of alternating-	239. Manufacture of alternating-	240. Manufacture of alternating-
current frequency-modulation	current frequency-modulation	current frequency-modulation	current frequency-modulation
traction equipment	traction equipment	traction equipment	traction equipment
15.交流调频调压牵引装置制造	241.交流调频调压牵引装置制造	239.交流调频调压牵引装置制造	240.交流调频调压牵引装置制造
(二十一) 通信设备、计算机及其 他电子设备制造业 (21) Communication equipment, computer, and other electronics manufacturing industry	(二十二)计算机、通信和其他电子 electronics manufacturing industry	子设备制造业 (22) Computer, communi	cation equipment and other
ENCOURAGED  1.Manufacture of HDV (High-	ENCOURAGED	ENCOURAGED	ENCOURAGED
	242. Manufacture of HDV (High-	240. Manufacture of HDV (High-	241. Manufacture of HDV (High-

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definition video), digital record player	definition video), digital record player	definition video), digital record player	definition video), digital record player
1. 高清数字摄录机、数字放声设备	242.高清数字摄录机、数字放声设	240.高清数字摄录机、数字放声设	241.高清数字摄录机、数字放声设
制造	备制造	备制造	备制造
ENCOURAGED  2. Manufacture of TFT-LCD, PDP, OLED flat panel displays and materials used in flat panel displays (excluding TFT-LCD glass substrate below sixth generation)  2.TFT-LCD、PDP、OLED 等平板显示 屏、显示屏材料制造(6 代及 6 代	ENCOURAGED 243. Manufacture of TFT-LCD, PDP, OLED flat panel displays and materials used in flat panel displays (excluding TFT-LCD glass substrate below sixth generation) 243.TFT-LCD、PDP、OLED 等平板显 示屏、显示屏材料制造(6 代及 6	ENCOURAGED 241. Manufacture of TFT-LCD, PDP, OLED flat panel displays and materials used in flat panel displays (excluding TFT-LCD glass substrate below sixth generation 241.TFT-LCD、PDP、OLED 等平板显 示屏、显示屏材料制造(6 代及 6	ENCOURAGED 242. Manufacture of TFT-LCD, PDP, OLED flat panel displays and materials used in flat panel displays (excluding TFT-LCD glass substrate below sixth generation 242.TFT-LCD、PDP、OLED 等平板显 示屏、显示屏材料制造(6 代及 6
以下 TFT-LCD 玻璃基板除外)	代以下 TFT-LCD 玻璃基板除外)	代以下 TFT-LCD 玻璃基板除外)	代以下 TFT-LCD 玻璃基板除外)
ENCOURAGED 3. Manufacture of optical engines, light sources, projection screens, high-definition projection tubes, micro-projector equipment modules, and other key parts used for bigscreen color projection display 3.大屏幕彩色投影显示器用光学引擎、光源、投影屏、高清晰度投影管和微显投影设备模块等关键件制造	ENCOURAGED 244. Manufacture of optical engines, light sources, projection screens, high-definition projection tubes, micro-projector equipment modules, and other key parts used for bigscreen color projection display 244.大屏幕彩色投影显示器用光学引擎、光源、投影屏、高清晰度投影管和微显投影设备模块等关键件制造	ENCOURAGED 242. Manufacture of optical engines, light sources, projection screens, high-definition projection tubes, micro-projector equipment modules, and other key parts used for bigscreen color projection display 242.大屏幕彩色投影显示器用光学引擎、光源、投影屏、高清晰度投影管和微显投影设备模块等关键件制造	ENCOURAGED 243. Manufacture of optical engines, light sources, projection screens, high-definition projection tubes, micro-projector equipment modules, and other key parts used for bigscreen color projection display 243. 大屏幕彩色投影显示器用光学引擎、光源、投影屏、高清晰度投影管和微显投影设备模块等关键件制造
ENCOURAGED  4. Manufacture of digital audio and video frequency coding and decoding equipment, digital broadcasting studio equipment, digital cable	ENCOURAGED 245. Manufacture of digital audio and video frequency coding and decoding equipment, digital broadcasting studio equipment, digital cable	ENCOURAGED 243. Manufacture of digital audio and video frequency coding and decoding equipment, digital broadcasting studio equipment, digital cable	ENCOURAGED 244. Manufacture of digital audio and video frequency coding and decoding equipment, digital broadcasting studio equipment, digital cable

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television system equipment, digital audio frequency broadcasting equipment, digital TV uplink and downlink switchers, SFN equipment for digital TV broadcasting, uplink station facilities for satellite-based digital TV broadcasting, and frontend equipment for SMATV 4.数字音、视频编解码设备,数字 广播电视演播室设备,数字有线电 视系统设备,数字音频广播发射设 备,数字电视上下变换器,数字电 视地面广播单频网(SFN)设备, 卫星数字电视上行站设备,卫星公 共接收电视 (SMATV) 前端设备制 诰

television system equipment, digital audio frequency broadcasting equipment, digital TV uplink and downlink switchers, SFN equipment for digital TV broadcasting, and uplink station facilities for satellitebased digital TV broadcasting 245.数字音、视频编解码设备,数 字广播电视演播室设备,数字有线 电视系统设备,数字音频广播发射 设备,数字电视上下变换器,数字 电视地面广播单频网(SFN)设 备,卫星数字电视上行站设备制造 Revised from 2011 Catalogue: Deleted "front-end equipment for SMATV" (卫星公共接收电视 (SMATV)前端设备)

television system equipment, digital audio frequency broadcasting equipment, digital TV uplink and downlink switchers, SFN equipment for digital TV broadcasting, and uplink station facilities for satellitebased digital TV broadcasting 243.数字音、视频编解码设备,数 字广播电视演播室设备,数字有线 电视系统设备,数字音频广播发射 设备,数字电视上下变换器,数字 电视地面广播单频网(SFN)设 |备,卫星数字电视上行站设备制造

television system equipment, digital audio frequency broadcasting equipment, digital TV uplink and downlink switchers, SFN equipment for digital TV broadcasting, and uplink station facilities for satellitebased digital TV broadcasting 245. 数字音、视频编解码设备,数 字广播电视演播室设备,数字有线 电视系统设备,数字音频广播发射 设备,数字电视上下变换器,数字 电视地面广播单频网(SFN)设 |备,卫星数字电视上行站设备制造

### **ENCOURAGED**

5. Design of integrated circuits; manufacture of large integrated circuits with 0.18 micron or smaller process technology, manufacture of simulated/numerical module integrated circuits with 0.8 micron or smaller process technology; manufacture of MEMS and compound semiconductor integrated circuits, advanced sealing and testing of BGA, PGA, CSP, and MCM 5.集成电路设计,线宽 0.18 微米及 以下大规模数字集成电路制造,0.8 以下大规模数字集成电路制造,

### **ENCOURAGED**

246. Design of integrated circuits; manufacture of large integrated circuits with 28 nanometer or smaller process technology, manufacture of simulated/numerical module integrated circuits with 0.11 micron or smaller process technology; manufacture of MEMS and compound semiconductor integrated circuits, advanced sealing and testing of BGA, PGA, CSP, and MCM 246.集成电路设计,线宽 28 纳米及

# **ENCOURAGED**

244. Integrated circuit design, line width of 28 nm and below large-scale digital integrated circuit manufacturing, 0.11 micron and below simulation, digital-analog integrated circuit manufacturing, MEMS and compound semiconductor integrated circuit manufacturing and BGA, PGA, FPGA, CSP, MCM and other advanced packaging and test 244. 集成电路设计,线宽 28 纳米 及以下大规模数字集成电路制造, 0.11 微米及以下模拟、数模集成电

### **ENCOURAGED**

245. Integrated circuit design, line width of 28 nm and below large-scale digital integrated circuit manufacturing, 0.11 micron and below simulation, digital-analog integrated circuit manufacturing, MEMS and compound semiconductor integrated circuit manufacturing and BGA, PGA, FPGA, CSP, MCM and other advanced packaging and test 245. 集成电路设计,线宽 28 纳米 及以下大规模数字集成电路制造, 0.11 微米及以下模拟、数模集成电

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微米及以下模拟、数模集成电路制 0.11 微米及以下模拟、数模集成电 路制造, MEMS 和化合物半导体集 路制造, MEMS 和化合物半导体集 路制造 , MEMS 和化合物半导体集 造, MEMS 和化合物半导体集成电 成电路制造及 BGA、PGA、FPGA、 成电路制造及 BGA、PGA、FPGA、 路制造及 BGA、PGA、CSP、MCM 成电路制造及 BGA、PGA、CSP、 CSP、MCM 等先进封装与测试 CSP、MCM 等先进封装与测试 Revised from 2015 Catalogue:FPGA Revised from 2015 Catalogue:FPGA 等先进封装与测试 MCM 等先进封装与测试 added added Revised from 2011 Catalogue: Changed "0.18 microns" (0.18 微米) to "28 nanometers" (28 纳米) for "large integrated circuits" (大规模数 字集成电路), and "0.8 microns" (0.8 微米) to "0.11 microns" (0.11 微米) for "simulated and numerical module integrated circuits" (模拟、数模集成 电路制造) **ENCOURAGED ENCOURAGED ENCOURAGED ENCOURAGED** 6. Manufacture of large- and 247. Manufacture of large- and 245. Manufacture of large- and 246. Manufacture of large- and medium-sized computers, highmedium-sized computers, highmedium-sized computers, highmedium-sized computers, highperformance computers (1 teraflop performance computers (10 teraflops performance computers (10 teraflops performance computers (10 teraflops per second and faster), portable per second), portable per second), portable per second), portable microcomputers, top-grade server (1 microcomputers, large-scale microcomputers, large-scale microcomputers, large-scale petaflop per second and above), simulation systems, large industrial simulation systems, large industrial simulation systems, large industrial large-scale simulation systems, large control systems and control devices control systems and control devices control systems and control devices industrial control systems and control 247.大中型电子计算机、万万亿次 245.大中型电子计算机、万万亿次 246. 大中型电子计算机、万万亿次 devices 高性能计算机、便携式微型计算 高性能计算机、便携式微型计算 高性能计算机、便携式微型计算 6.大中型电子计算机、百万亿次高 机、大型模拟仿真系统、大型工业 机、大型模拟仿真系统、大型工业 机、大型模拟仿真系统、大型工业 性能计算机、便携式微型计算机、 控制机及控制器制造 控制机及控制器制造 控制机及控制器制造 每秒一万亿次及以上高档服务器、 Revised from 2011 Catalogue: 大型模拟仿真系统、大型工业控制 Changed "1 teraflop per second" to "10 teraflops per second" for "high-机及控制器制造 performance computers"; deleted

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	"top-grade servers ("1 petaflop per second and above)"		
ENCOURAGED 7. Manufacture of computer-based digital signal processing systems and integrated circuit boards 7.计算机数字信号处理系统及板卡制造	ENCOURAGED 248. Manufacture of computer-based digital signal processing systems and integrated circuit boards 248.计算机数字信号处理系统及板卡制造	ENCOURAGED 246. Manufacture of computer-based digital signal processing systems and integrated circuit boards 246.计算机数字信号处理系统及板卡制造	ENCOURAGED 247. Manufacture of computer-based digital signal processing systems and integrated circuit boards 247. 计算机数字信号处理系统及板卡制造
ENCOURAGED  8. Manufacture of systems for graphic and image identification and processing  8. 图形图像识别和处理系统制造	ENCOURAGED 249. Manufacture of systems for graphic and image identification and processing 249. 图形图像识别和处理系统制造	ENCOURAGED 247. Manufacture of systems for graphic and image identification and processing 247. 图形图像识别和处理系统制造	ENCOURAGED 248. Manufacture of systems for graphic and image identification and processing 248. 图形图像识别和处理系统制造
ENCOURAGED  9. Development and manufacture of high-capacity optical and magnetic disc drives and associated parts  9. 大容量光、磁盘驱动器及其部件开发与制造	ENCOURAGED 250. Development and manufacture of high-capacity optical and magnetic disc drives and associated parts 250.大容量光、磁盘驱动器及其部	ENCOURAGED 248. Development and manufacture of high-capacity optical and magnetic disc drives and associated parts 248.大容量光、磁盘驱动器及其部 件开发与制造	ENCOURAGED 249. Development and manufacture of high-capacity optical and magnetic disc drives and associated parts 249. 大容量光、磁盘驱动器及其部
ENCOURAGED 10. Manufacture of storage systems (high-speed and at a volume of 100TB or above) and intelligent storage equipment 10.高速、容量 100TB 及以上存储系统及智能化存储设备制造	件开发与制造 ENCOURAGED 251.Manufacture of storage systems (high-speed and at a volume of 100TB or above) and intelligent storage equipment 251.高速、容量 100TB 及以上存储系统及智能化存储设备制造	ENCOURAGED 249. Manufacture of storage systems (high-speed and at a volume of 100TB or above) and intelligent storage equipment 249. 高速、容量 100TB 及以上存储系统及智能化存储设备制造	作开发与制造 ENCOURAGED 250. Development and manufacture of high-capacity optical and magnetic disc drives and associated parts 250. 高速、容量 100TB 及以上存储系统及智能化存储设备制造
ENCOURAGED 11. Manufacture of computer-aided design (three-dimensional CAD), computer-aided testing (CAT),	ENCOURAGED 252. Manufacture of computer-aided design (three-dimensional CAD), electronic design automation (EDA),	ENCOURAGED 250. Manufacture of computer-aided design (three-dimensional CAD), electronic design automation (EDA),	ENCOURAGED 251. Manufacture of computer-aided design (three-dimensional CAD), electronic design automation (EDA),

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computer-aided manufacturing (CAM), and computer-aided engineering systems, and related computer applications 11.计算机辅助设计(三维 CAD)、辅助测试(CAT)、辅助制造(CAM)、辅助工程(CAE)系统及其他计算机应用系统制造	computer-aided testing (CAT), computer-aided manufacturing (CAM), and computer-aided engineering systems, and related computer applications 252.计算机辅助设计(三维CAD)、电子设计自动化(EDA)、辅助测试(CAT)、辅助制造(CAM)、辅助工程(CAE)系统及其他计算机应用系统制造Revised from 2011 Catalogue: Added "electronic design automation (EDA)"	computer-aided testing (CAT), computer-aided manufacturing (CAM), and computer-aided engineering systems, and related computer applications 250.计算机辅助设计(三维CAD)、电子设计自动化(EDA)、辅助测试(CAT)、辅助制造(CAM)、辅助工程(CAE)系统及其他计算机应用系统制造	computer-aided testing (CAT), computer-aided manufacturing (CAM), and computer-aided engineering systems, and related computer applications 251. 计算机辅助设计(三维CAD)、电子设计自动化(EDA)、辅助测试(CAT)、辅助制造(CAM)、辅助工程(CAE)系统及其他计算机应用系统制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
12. Software product development	253. Software product development	251. Software product development	252. Software product development
and manufacturing	and manufacturing	and manufacturing	and manufacturing
12. 软件产品开发、生产	253. 软件产品开发、生产	251. 软件产品开发、生产	252. 软件产品开发、生产
ENCOURAGED 13.Development and manufacture of materials for specialized electronics use (except for development and manufacturing of prefabricated rods for fiber optics) 13.电子专用材料开发与制造(光纤预制棒开发与制造除外)	ENCOURAGED 254. Development and manufacture of materials for specialized electronics use (except for development and manufacturing of prefabricated rods for fiber optics) 254.电子专用材料开发与制造(光纤预制棒开发与制造除外)	ENCOURAGED 252. Development and manufacture of materials for specialized electronics use (except for development and manufacturing of prefabricated rods for fiber optics) 252.电子专用材料开发与制造(光纤预制棒开发与制造除外)	ENCOURAGED 253. Development and manufacture of materials for specialized electronics use (except for development and manufacturing of prefabricated rods for fiber optics) 253. 电子专用材料开发与制造(光
ENCOURAGED  14. Manufacture of special electronic equipment, testing equipment, and tools and dies  14.电子专用设备、测试仪器、工模具制造	ENCOURAGED	ENCOURAGED	ENCOURAGED
	255. Manufacture of special	253. Manufacture of special	254. Manufacture of special
	electronic equipment, testing	electronic equipment, testing	electronic equipment, testing
	equipment, and tools and dies	equipment, and tools and dies	equipment, and tools and dies
	255.电子专用设备、测试仪器、工	253.电子专用设备、测试仪器、工	254. 电子专用设备、测试仪器、工
	模具制造	模具制造	模具制造

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

#### **ENCOURAGED** 256. Production of new types of **ENCOURAGED ENCOURAGED** 15. Production of new types of electronic parts: chip components, 254. Production of new types of 255. Production of new types of electronic parts: chip components, sensitive components, and sensors; electronic parts: chip components, electronic parts: chip components, sensitive components, and sensors; frequency control and selecting sensitive components, and sensors; sensitive components, and sensors; frequency control and selecting components; hybrid integrated frequency control and selecting frequency control and selecting components; hybrid integrated circuits; electric-powered electronic components; hybrid integrated components; hybrid integrated circuits; electric-powered electronic parts; photoelectric components; circuits; electric-powered electronic circuits; electric-powered electronic new types of electro-mechanical parts; photoelectric components; parts; photoelectric components; parts; photoelectric components; new types of electro-mechanical components; high polymer solid new types of electro-mechanical new types of electro-mechanical components; high polymer solid capacitors, super-capacitors and components; high polymer solid components; high polymer solid integrated passive components; highcapacitors, super-capacitors and capacitors, super-capacitors and capacitors, super-capacitors and integrated passive components; high density build-up boards, multilayer integrated passive components; highintegrated passive components; highdensity build-up boards, multilayer flexible boards, strong flexible density build-up boards, multilayer density build-up boards, multilayer flexible boards, strong flexible printed circuit boards, and packaging flexible boards, strong flexible flexible boards, strong flexible printed circuit boards, and packaging carrier boards printed circuit boards, and packaging printed circuit boards, and packaging carrier boards carrier boards carrier boards 256.新型电子元器件制造:片式元 15.新型电子元器件制造:片式元器 254.新型电子元器件制造:片式元 255. 新型电子元器件制造:片式元 器件、敏感元器件及传感器、频率 件、敏感元器件及传感器、频率控 器件、敏感元器件及传感器、频率 器件、敏感元器件及传感器、频率 控制与选择元件、混合集成电路、 制与选择元件、混合集成电路、电 控制与选择元件、混合集成电路、 控制与选择元件、混合集成电路、 电力电子器件、光电子器件、新型 力电子器件、光电子器件、新型机 电力电子器件、光电子器件、新型 电力电子器件、光电子器件、新型 机电元件、高分子固体电容器、超 电元件、高分子固体电容器、超级 机电元件、高分子固体电容器、超 机电元件、高分子固体电容器、超 级电容器、无源集成元件、高密度 电容器、无源集成元件、高密度互 级电容器、无源集成元件、高密度 级电容器、无源集成元件、高密度 互连积层板、多层挠性板、刚挠印 连积层板、多层挠性板、刚挠印刷 互连积层板、多层挠性板、刚挠印 互连积层板、多层挠性板、刚挠印 刷电路板及封装载板 电路板及封装载板 刷电路板及封装载板 刷电路板及封装载板 **ENCOURAGED** 256. Manufacture of touch control systems (touch screen, touch components, etc.) 256. 触控系统 (触控屏幕、触控组 件等)制造

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ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
16. Manufacture of touch control systems (touch screen, touch	257. Manufacture of touch control systems (touch screen, touch	255. Manufacture of touch control systems (touch screen, touch	257. Virtual reality (VR), enhanced reality (AR) equipment R & D and
components, etc.)	components, etc.)	components, etc.)	manufacturing
16.触控系统(触控屏幕、触控组件	257.触控系统(触控屏幕、触控组	255.触控系统(触控屏幕、触控组	257. 虚拟现实(VR)、增强现实
等)制造	件等)制造	件等)制造	(AR)设备研发与制造
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
17. Manufacture of high-illumination light emitting diodes (LED)	258. Manufacture of high- illumination light emitting diodes	256. Manufacture of high- illumination light emitting diodes	258. Manufacture of high- illumination light emitting diodes
(illumination efficiency above 100	(LED) (illumination efficiency above	(LED) (illumination efficiency above	(LED) (illumination efficiency above
lm/W), LED panels (blue, illumination	140 lm/W), LED panels (blue,	140 lm/W), LED panels (blue,	140 lm/W), LED panels (blue,
efficiency above 100 lm/W), white	illumination efficiency above 140	illumination efficiency above 140	illumination efficiency above 140
illuminating tubes (illumination efficiency above 100 lm/W and	lm/W), white illuminating tubes (illumination efficiency above 140	lm/W), white illuminating tubes (illumination efficiency above 140	lm/W), white illuminating tubes (illumination efficiency above 140
power above 200 mW)	Im/W and power above 200 mW)	Im/W and power above 200 mW)	Im/W and power above 200 mW)
17. 发光效率 100 lm/W 以上高亮度	258. 发光效率 140 lm/W 以上高亮	256. 发光效率 140 lm/W 以上高亮	258. 发光效率 140lm/W 以上高亮度
发光二极管、发光效率 100 lm/W	度发光二极管、发光效率 140 lm/W	度发光二极管、发光效率 140 lm/W	发光二极管、发光效率 140lm/W 以
以上发光二极管外延片(蓝光)、	以上发光二极管外延片(蓝光)、	以上发光二极管外延片(蓝光)、	上发光二极管外延片(蓝光)、发
发光效率 100lm/W 以上且功率	发光效率 140 lm/W 以上且功率	发光效率 140 lm/W 以上且功率	光效率 140lm/W 以上且功率
200mW 以上白色发光管制造	200mW 以上白色发光管制 造	200mW 以上白色发光管制 造	200mW 以上白色发光管制造
	Revised from 2011 Catalogue:		
	Changed "above 100 lm/W "to		
	"above 140 lm/W" for the "illumination efficiency" of "high-		
	illumination LEDs"; "LED panels		
	(blue)" and "white illuminating tubes"		
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
18. Development and manufacture of	·	257. Development and manufacture	259. Development and manufacture
parts for high-density digital optical compact disk drives	of parts for high-density digital optical compact disk drives	of parts for high-density digital optical compact disk drives	of parts for high-density digital optical compact disk drives

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18.高密度数字光盘机用关键件开发 与生产	259.高密度数字光盘机用关键件开 发与生产	257.高密度数字光盘机用关键件开 发与生产	259. 高密度数字光盘机用关键件开 发与生产
ENCOURAGED 19. Copying of read-only CDs and manufacture of rewritable CDs (CD-RW) 19.只读类光盘复制和可录类光盘生产	ENCOURAGED 260. Manufacture of rewritable CDs (CD-RW) 260. 可录类光盘生产 Revised from 2011 Catalogue: Deleted "copying of read-only CDs" (只读类光盘复制)	ENCOURAGED 258. Manufacture of rewritable CDs (CD-RW) 258. 可录类光盘生产	ENCOURAGED 260. Manufacture of rewritable CDs (CD-RW) 260. 可录类光盘生产
ENCOURAGED 20. Design and manufacture of civil satellites (Chinese majority control) 20. 民用卫星设计与制造(中方控股)	ENCOURAGED 261. Design and manufacture of civil satellites, and manufacture of payloads of civil satellites (Chinese majority control) 261. 民用卫星设计与制造、民用卫星设计与制造、民用卫星存效载荷制造(中方控股) Revised from 2011 Catalogue: Combined items 20 and 21 at 261	See Encouraged List Item 218	See Encouraged List Item 219
ENCOURAGED 21. Manufacture of satellite payloads (Chinese majority control) 21民用卫星有效载荷制造(中方 控股)	Revised from 2011 Catalogue: Combined items 20 and 21 at 261		
ENCOURAGED 22. Manufacture of parts for civil satellites 22. 民用卫星零部件制造	ENCOURAGED 262. Manufacture of parts for civil satellites 262. 民用卫星零部件制造	See Encouraged List Item 219	See Encouraged List Item 220
			ENCOURAGED 261. 3D printing equipment key components R & D and

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			manufacturing 261. 3D 打印设备关键零部件研发与
			制造 Added to the 2017 Catalogue as part of efforts to increase international investment opportunities related to the Made in China 2025 initiative.
ENCOURAGED 23. Manufacture of equipment for satellite communications systems 23. 卫星通信系统设备制造	ENCOURAGED 263. Manufacture of equipment for satellite communications systems 263. 卫星通信系统设备制造	ENCOURAGED 259. Manufacture of equipment for satellite communications systems 259. 卫星通信系统设备制造	ENCOURAGED 262. Manufacture of equipment for satellite communications systems 262. 卫星通信系统设备制造
ENCOURAGED 24. Manufacture of receiving equipment for satellite navigation and key parts 24. 卫星导航定位接收设备及关键 部件制造	Deleted		
ENCOURAGED 25. Manufacture of optical communications measuring instruments, and of optical transceivers with a speed of 10 GB/s or more 25. 光通信测量仪表、速率 10Gb/s 及以上光收发器制造	ENCOURAGED 264. Manufacture of optical communications measuring instruments, and of optical transceivers with a speed of 40 Gb/s or more 264. 光通信测量仪表、速率 40Gb/s 及以上光收发器制造 Revised from 2011 Catalogue: Changed "10 Gb/s" to "40 Gb/s" for the "speed" of "optical transceivers"	manufacturing	ENCOURAGED 263. Optical communication measuring instruments, the rate of 40Gbps and above optical transceiver manufacturing 263. 光通信测量仪表、速率 40Gbps 及以上光收发器制造 Revised from 2015 Catalogue: Changed "40 Gb/s" to "40 Gbps" for the "speed" of "optical transceivers"
ENCOURAGED 26. Manufacture of ultra-wide band	ENCOURAGED 265. Manufacture of ultra-wide band	ENCOURAGED 261. Manufacture of ultra-wide band	ENCOURAGED 264. Manufacture of ultra-wide band

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(UWB) communications equipment	(UWB) communications equipment	(UWB) communications equipment	(UWB) communications equipment
26. 超宽带(UWB)通信设备制造	265. 超宽带 ( UWB ) 通信设备制造	261. 超宽带 ( UWB ) 通信设备制造	264. 超宽带(UWB)通信设备制造
ENCOURAGED 27. Manufacture of equipment for wireless local area networks (including ones compatible with WAPI) and wireless wide area networks 27. 无线局域网(含支持 WAPI)、	ENCOURAGED 266. Manufacture of equipment for wireless local area networks (including ones compatible with WAPI) and wireless wide area networks 266. 无线局域网(含支持WAPI)、广域网设备制造	ENCOURAGED 262. Manufacture of equipment for wireless local area networks (including ones compatible with WAPI) and wireless wide area networks 262. 无线局域网(含支持WAPI)、广域网设备制造	ENCOURAGED 265. Manufacture of equipment for wireless local area networks (including ones compatible with WAPI) and wireless wide area networks 265. 无线局域网(含支持WAPI)、广域网设备制造
ENCOURAGED 28. Manufacture of time-division multiplexing (TDM) equipment at a speed of 40 Gbps or more, dense wavelength-division multiplexing (DWDM) equipment, passive broadband network equipment (including EPON, GPON, WDM-PON, etc.), next-generation digital subscriber line (DSL) microchips and equipment, optical cross-connect (OXC) equipment, automatically switched optical networks (ASON), fiber optic transmitters of more than 40 G/SSDH 28. 40 Gbps 及以上速率时分复用设备 (DWDM)、宽带无源网络设备 (包括 EPON、GPON、WDM-PON 等)、下一代 DSL 芯片及设备、光 交叉连接设备(OXC)、自动光交	ENCOURAGED 267. Manufacture of time-division multiplexing (TDM) equipment at a speed of 100 Gbps or more, dense wavelength-division multiplexing (DWDM) equipment, passive broadband network equipment (including EPON, GPON, WDM-PON, etc.), next-generation digital subscriber line (DSL) microchips and equipment, optical cross-connect (OXC) equipment, automatically switched optical networks (ASON), fiber optic transmitters of more than 40 G/sSDH 267. 100 Gbps 及以上速率时分复用设备(DWDM)、宽带无源网络设备(包括 EPON、GPON、WDM-PON等)、下一代 DSL 芯片及设备、光交叉连接设备(OXC)、自动光交	ENCOURAGED 263. 100Gbps and above rate time division multiplexing equipment (TDM), (DWDM), broadband passive network equipment (including EPON, GPON, WDM-PON, etc.), next-generation DSL chips and devices, optical cross-connect equipment (OXC), automatic optical switching network equipment (ASON), 40Gbps SDH optical fiber communication transmission equipment manufacturing 263. 100Gbps 及以上速率时分复用设备(DWDM)、宽带无源网络设备(DWDM)、宽带无源网络设备(包括 EPON、GPON、WDM-PON等)、下一代 DSL 芯片及设备、光交叉连接设备(OXC)、自动光交换网络设备(ASON)、40Gbps 以	ENCOURAGED 266. 100Gbps and above rate time division multiplexing equipment (TDM), (DWDM), broadband passive network equipment (including EPON, GPON, WDM-PON, etc.), next-generation DSL chips and devices, optical cross-connect equipment (OXC), automatic optical switching network equipment (ASON), 40Gbps SDH optical fiber communication transmission equipment manufacturing 266. 100Gbps 及以上速率时分复用设备(DWDM)、宽带无源网络设备(DWDM)、宽带无源网络设备(包括 EPON、GPON、WDM-PON等)、下一代 DSL 芯片及设备、光交叉连接设备(OXC)、自动光交换网络设备(ASON)、40Gbps 以

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换网络设备(ASON)、40 G/sSDH 以上光纤通信传输设备制造	换网络设备(ASON)、40 G/sSDH 以上光纤通信传输设备制造 Revised from 2011 Catalogue: Changed "40 Gbps" to "100 Gbps" for the "speed" of "time-division multiplexing (TDM) equipment"	上 SDH 光纤通信传输设备制造 Revised from 2015 Catalogue: "40 G/sSHD" changed to "40Gbps"	上 SDH 光纤通信传输设备制造 Revised from 2015 Catalogue: "40 G/sSHD" changed to "40Gbps"
ENCOURAGED 29. Development and manufacture of next-generation Internet system equipment, terminal equipment, testing equipment, software, and chips based on IPv6 29. 基于 IPv6 的下一代互联网系统设备、终端设备、检测设备、软件、芯片开发与制造	of next-generation Internet system equipment, terminal equipment, testing equipment, software, and chips based on IPv6	ENCOURAGED 264. Development and manufacture of next-generation Internet system equipment, terminal equipment, testing equipment, software, and chips based on IPv6 264. 基于 IPv6 的下一代互联网系统设备、终端设备、检测设备、软件、芯片开发与制造	ENCOURAGED 267. Development and manufacture of next-generation Internet system equipment, terminal equipment, testing equipment, software, and chips based on IPv6 267. 基于 IPv6 的下一代互联网系统设备、终端设备、检测设备、软件、芯片开发与制造
ENCOURAGED 30. Manufacture of equipment for third-generation and later mobile communication system mobile phones, base stations, core network equipment, and network testing equipment 30. 第三代及后续移动通信系统手机、基站、核心网设备以及网络检	ENCOURAGED 269. Manufacture of equipment for third-generation and later mobile communication system mobile phones, base stations, core network equipment, and network testing equipment 269. 第三代及后续移动通信系统手机、基站、核心网设备以及网络检	ENCOURAGED 265. Fourth generation and follow-up mobile communication system mobile phone, base station, core network equipment and network testing equipment development and manufacturing 265. 第四代及后续移动通信系统手机、基站、核心网设备以及网络检	ENCOURAGED 268. Fourth generation and follow-up mobile communication system mobile phone, base station, core network equipment and network testing equipment development and manufacturing 268. 第四代及后续移动通信系统手机、基站、核心网设备以及网络检
测设备开发与制造	测设备开发与制造	测设备开发与制造	测设备开发与制造
MAMINIA SIPILE	the state of the s		

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

equipment 30. 第三代及后续移动通信系统手机、基站、核心网设备以及网络检测设备开发与制造	equipment 269. 第三代及后续移动通信系统手机、基站、核心网设备以及网络检测设备开发与制造		
ENCOURAGED 31. Manufacture and development of high-end routers and network switches more than 1 gigabyte 31. 高端路由器、干兆比以上网络交换机开发与制造	270. Manufacture and development of high-end routers and network switches more than 1 gigabyte 270. 高端路由器、干兆比以上网络交换机开发与制造	ENCOURAGED 266. Manufacture and development of high-end routers with machine processing capacity greater than 6.4Tbps (two-way), and network switches with capacity greater than 40Tbps 266. 整机处理能力大于 6.4Tbps (双向)的高端路由器、交换容量大于 40Tbps 的交换机开发与制造 Revised from 2015 Catalogue: Narrow "high end routers and network switches more than 1 gigabyte" down to "high end routers with machine processing capacity greater than 6.4 Tbps (two-way), and network switches with capacity greater than 40 Tbps".	ENCOURAGED 269. Manufacture and development of high-end routers with machine processing capacity greater than 6.4Tbps (two-way), and network switches with capacity greater than 40Tbps 269. 整机处理能力大于 6.4Tbps (双向)的高端路由器、交换容量大于 40Tbps 的交换机开发与制造 Revised from 2015 Catalogue: Narrow "high end routers and network switches more than 1 gigabyte" down to "high end routers with machine processing capacity greater than 6.4 Tbps (two-way), and network switches with capacity greater than 40 Tbps".
ENCOURAGED 32. Manufacture of air-traffic control equipment (limited to EJVs and CJVs) 32. 空中交通管制系统设备制造 (限于合资、合作)	ENCOURAGED 271. Manufacture of air-traffic control equipment 271. 空中交通管制系统设备制造 Revised from 2011 Catalogue: Deleted "limited to EJVs and CJVs"	ENCOURAGED 267. Manufacture of air-traffic control equipment 267. 空中交通管制系统设备制造	ENCOURAGED 270. Manufacture of air-traffic control equipment 270. 空中交通管制系统设备制造
	0 11 11	ENCOURAGED 268. Development and manufacture of teaching support equipment based	3 11 1 1

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on computer information technologies such as voice, light, electricity, and touch control for traditional Chinese medicine (TCM), as well as equipment for physiology models
272.基于声、光、电、触控等计算机信息技术的中医药电子辅助教学设备,虚拟病理、生理模型人设备的开发与制造Added

on computer information technologies such as voice, light, electricity, and touch control for traditional Chinese medicine (TCM), as well as equipment for physiology models

268.基于声、光、电、触控等计算机信息技术的中医药电子辅助教学设备,虚拟病理、生理模型人设备的开发与制造

on computer information technologies such as voice, light, electricity, and touch control for traditional Chinese medicine (TCM), as well as equipment for physiology models

271. 基于声、光、电、触控等计算机信息技术的中医药电子辅助教学设备,虚拟病理、生理模型人设备的开发与制造

# (二十二)仪器仪表及文化、办公用

## 机械制造业

(22) Manufacturing of devices, instruments, and machines for cultural and office use

# (二十三)仪器仪表制造业

(23) Manufacturing of devices, instruments, and machines for cultural and office use

#### **ENCOURAGED**

- 1. Manufacture of automatic industrial processing systems and devices: fieldbus control systems, large-scale programmable logic controller (PLC), two-phase flow meters, solid flow meters, new sensors, and field surveying instruments
- 1.工业过程自动控制系统与装置制造:现场总线控制系统,大型可编程控制器(PLC),两相流量计, 固体流量计,新型传感器及现场测量仪表

#### **ENCOURAGED**

273. Manufacture of automatic industrial processing systems and devices: fieldbus control systems, large-scale programmable logic controller (PLC), two-phase flow meters, solid flow meters, new sensors, and field surveying instruments
273. 工业过程自动控制系统与装置制造:现场总线控制系统,大型可编程控制器(PLC),两相流量计,固体流量计,新型传感器及现场测量仪表

#### **ENCOURAGED**

industrial processing systems and devices: fieldbus control systems, large-scale programmable logic controller (PLC), two-phase flow meters, solid flow meters, new sensors, and field surveying instruments

269.工业过程自动控制系统与装置制造:现场总线控制系统,大型可编程控制器(PLC),两相流量计,固体流量计,新型传感器及现场测量仪表

269. Manufacture of automatic

#### **ENCOURAGED**

272. Manufacture of automatic industrial processing systems and devices: fieldbus control systems, large-scale programmable logic controller (PLC), two-phase flow meters, solid flow meters, new sensors, and field surveying instruments

272. 工业过程自动控制系统与装置制造:现场总线控制系统,大型可编程控制器(PLC),两相流量计,固体流量计,新型传感器及现场测量仪表

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#### **ENCOURAGED**

2. Development and manufacture of large precision instruments: electron microscopes, laser scanning microscopes, scanning tunneling microscope, electric field probes, metallographic microscopes, photoelectric readout spectrometers, raman spectrometers, mass spectrometer, and chromatographymass spectrometry, nuclear magnetic resonance spectrometers, energy spectrum instruments, X-ray fluorescent spectrometers, diffractometers, industrial CT, 450 kV industrial X-ray damage detectors, large dynamic balancing machines, online systems for monitoring and measuring mechanical quantity, coordinate measuring machines (CMM), laser comparators, electrical prospecting instrument, airborne (above 500 m) electrical and gamma energy spectrum measuring instruments, borehole gravimeters and three-component magnetometers, high-accuracy microgravity and aeronautic gravity gradient measuring instruments, optical grid rulers, and encoders 2.大型精密仪器开发与制造:电子 显微镜、激光扫描显微镜、扫描隧 道显微镜、电子探针、大型金相显 微镜,光电直读光谱仪、拉曼光谱

#### **ENCOURAGED**

274. Development and manufacture of large precision instruments 274.大型精密仪器开发与制造 Revised from 2011 Catalogue: Removed "electron microscopes, lase scanning microscopes, scanning tunneling microscope, electric field probes, metallographic microscopes, photoelectric readout spectrometers, raman spectrometers, mass spectrometer, and chromatographymass spectrometry, nuclear magnetic resonance spectrometers, energy spectrum instruments, X-ray fluorescent spectrometers, diffractometers, industrial CT, 450 kV industrial X-ray damage detectors, large dynamic balancing machines, online systems for monitoring and measuring mechanical quantity, coordinate measuring machines (CMM), laser comparators, electrical prospecting instrument, airborne (above 500 m) electrical and gamma energy spectrum measuring instruments, borehole gravimeters and three-component magnetometers, high-accuracy microgravity and aeronautic gravity gradient measuring instruments, optical grid rulers, and encoders"

#### **ENCOURAGED**

270. Large-scale precision instruments, high-resolution microscope (resolution less than 200nm) development and manufacturing 270. 大型精密仪器、高分辨率显微镜(分辨率小于 200nm)开发与制

Revised from 2015 Catalogue: Added " high-resolution microscope (resolution less than 200nm) "

#### **ENCOURAGED**

273. Large-scale precision instruments, high-resolution microscope (resolution less than 200nm) development and manufacturing

273. 大型精密仪器、高分辨率显微 镜(分辨率小于 200nm) 开发与制 造

Revised from 2015 Catalogue: Added " high-resolution microscope (resolution less than 200nm) "

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仪,质谱仪、色谱-质谱联用仪、核磁共振波谱仪、能谱仪、X 射线荧光光谱仪、衍射仪,工业 CT、450KV 工业 X 射线探伤机、大型动平衡试验机、在线机械量自动检测系统、三座标测量机、激光比长仪,电法勘探仪、500m 以上航空电法及伽玛能谱测量仪器、井中重力及三分量磁力仪、高精度微伽重力及航空重力梯度测量仪器,光栅尺、编码器			
ENCOURAGED 3. Manufacture of high-accuracy digital voltmeters and high-accuracy digital ammeters (with a display range of more than 7.5 digits) 3.高精度数字电压表、电流表制造	ENCOURAGED 275. Manufacture of high-accuracy digital voltmeters and high-accuracy digital ammeters (with a display range of more than 7.5 digits) 275.高精度数字电压表、电流表制	ENCOURAGED 271. Manufacture of high-accuracy digital voltmeters and high-accuracy digital ammeters (with a display range of more than 7.5 digits) 271.高精度数字电压表、电流表制	ENCOURAGED 274. Manufacture of high-accuracy digital voltmeters and high-accuracy digital ammeters (with a display range of more than 7.5 digits) 274. 高精度数字电压表、电流表制
(显示量程七位半以上)	造(显示量程七位半以上)	造(显示量程七位半以上)	造(显示量程七位半以上)
ENCOURAGED 4. Manufacture of reactive power automatic compensation devices 4. 无功功率自动补偿装置制造	ENCOURAGED	ENCOURAGED	ENCOURAGED
	276. Manufacture of reactive power	272. Manufacture of reactive power	275. Manufacture of reactive power
	automatic compensation devices	automatic compensation devices	automatic compensation devices
	276. 无功功率自动补偿装置制造	272. 无功功率自动补偿装置制造	275. 无功功率自动补偿装置制造
ENCOURAGED 5. Manufacture of production-safety equipment and devices 5. 安全生产新仪器设备制造	ENCOURAGED	ENCOURAGED	ENCOURAGED
	277. Manufacture of production-	273. Manufacture of production-	276. Manufacture of production-
	safety equipment and devices	safety equipment and devices	safety equipment and devices
	277. 安全生产新仪器设备制造	273. 安全生产新仪器设备制造	276. 安全生产新仪器设备制造
ENCOURAGED 6. Manufacture of VXI bus automatic	ENCOURAGED	ENCOURAGED	ENCOURAGED
	278. Manufacture of VXI bus	274. Manufacture of VXI bus	277. Manufacture of VXI bus

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testing systems (in line with IEEE1155 international standards) 6. VXI 总线式自动测试系统(符合 IEEE1155 国际规范)制造	automatic testing systems (in line with IEEE1155 international standards) 278. VXI 总线式自动测试系统(符 合 IEEE1155 国际规范)制造	automatic testing systems (in line with IEEE1155 international standards) 274. VXI 总线式自动测试系统(符 合 IEEE1155 国际规范)制造	automatic testing systems (in line with IEEE1155 international standards) 277. VXI 总线式自动测试系统(符 合 IEEE1155 国际规范)制造
ENCOURAGED 7. Development and manufacture of underground coal mine monitoring and disaster prediction systems and of integrated management systems for examining coal mine safety 7. 煤矿井下监测及灾害预报系统、煤炭安全检测综合管理系统开发与制造	ENCOURAGED 279. Development and manufacture of underground coal mine monitoring and disaster prediction systems and of integrated management systems for examining coal mine safety 279. 煤矿井下监测及灾害预报系 统、煤炭安全检测综合管理系统开 发与制造	ENCOURAGED 275. Development and manufacture of underground coal mine monitoring and disaster prediction systems and of integrated management systems for examining coal mine safety 275. 煤矿井下监测及灾害预报系统、煤炭安全检测综合管理系统开发与制造	ENCOURAGED 278. Development and manufacture of underground coal mine monitoring and disaster prediction systems and of integrated management systems for examining coal mine safety 275. 煤矿井下监测及灾害预报系统、煤炭安全检测综合管理系统开发与制造
ENCOURAGED  8. Manufacture of engineering measurement and geophysical observation equipment: digital triangulation systems, computernumerically controlled (CNC) prototype systems for 3D terrain modeling (area > 1,000 mm × 1,000 mm, level error < 1 mm, height error < 0.5 mm), ultra-broadband seismometers (Ф<5 cm, bandwidth 0.01-50 Hz, equivalent earthquake noise speed < 10-9 m/s), seismic data collection and processing systems, integrated systems for observing borehole earthquakes and seismic precursors, precision vibroseis systems, engineering acceleration measurement systems, high-	ENCOURAGED 280. Manufacture of engineering measurement and geophysical observation equipment 280.工程测量和地球物理观测设备 制造 Revised from 2011 Catalogue: Removed detailed description	ENCOURAGED 276. Manufacture of engineering measurement and geophysical observation equipment 276.工程测量和地球物理观测设备制造	ENCOURAGED 279. Manufacture of engineering measurement and geophysical observation equipment 279.工程测量和地球物理观测设备制造

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precision GPS receivers (precision 1		
mm+1 ppm), interferometric		
synthetic aperture radar (INSAR)		
image receiving and processing		
systems, absolute gravimeter		
(accuracy < 1 micro-gamma), satellite		
gravimeters, coherent and dual-		
polarization Doppler weather radar		
systems, visibility meters,		
meteorological sensors (temperature,		
air pressure, humidity, wind,		
precipitation, clouds, visibility,		
radiation, soil freezing, and snow		
depth), lightning protection systems,		
multi-level dust collectors, 3D		
ultrasound wind speed instruments,		
high-precision intelligent total station		
instruments, 3D laser scanners, high-		
performance diamond drilling heads		
used for drilling and exploration,		
laser range-finders without linked		
targets, wind profilers (with radio		
acoustic sounding systems [RASS]),		
GPS electronic detection instrument		
systems, CO2/H2O fluctuation		
observation systems, border Doppler		
laser radar, particle size		
spectrometers (3nm-20 μm), high-		
performance data collectors, and		
underwater gliders		
8.工程测量和地球物理观测设备制		
造:数字三角测量系统、三维地形		
模型数控成型系统(面积 >		
1000×1000mm、水平误差<1mm、		

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			· · · · · · · · · · · · · · · · · · ·
高程误差 < 0.5mm ) 、超宽频带地			
震计(φ < 5cm、频带 0.01-50Hz、等			
效地动速度噪声 < 10-9m/s)、地震			
数据集合处理系统、综合井下地震			
和前兆观测系统、精密可控震源系			
统、工程加速度测量系统、高精度			
GPS 接收机(精度 1mm+1ppm)、			
INSAR 图像接收及处理系统、INSAR			
图像接收及处理系统、精度 < 1 微			
伽的绝对重力仪、卫星重力仪、采			
用相干或双偏振技术的多普勒天气			
雷达、能见度测量仪、气象传感器			
(温、压、湿、风、降水、云、能			
见度、辐射、冻土、雪深)、防雷			
击系统、多级飘尘采样计、3-D 超			
声风速仪、高精度智能全站仪、三			
维激光扫描仪、钻探用高性能金刚			
石钻头、无合作目标激光测距仪、			
风廓线仪(附带 RASS)、GPS 电子			
探控仪系统、CO2/H2O 通量观测系			
统、边界层多普勒激光雷达、颗粒			
物颗粒经谱仪器(3nm-20μm)、			
高性能数据采集器、水下滑翔器			
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
• •	, ,	277. Manufacture of equipment for	280. Manufacture of equipment for
environmental monitoring: automatic	environmental monitoring		

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SO2 sample collectors and analyzers, automatic NOX and NO2 sample collectors and analyzers, automatic O3 monitors, automatic CO monitors, smoke and Pm2.5 particulate sampling tools and cutters, portable instruments for measuring toxic and hazardous gas, automatic analyzers for organic air pollutants, automatic online chemical oxygen demand (COD) monitors, automatic online biochemical oxygen demand (BOD) monitors, automatic online turbidity monitors, automatic online dissolved oxygen (DO) monitors, automatic online total organic carbon (TOC) monitors, automatic online ammonia and nitrogen monitors, radiation volume monitors and analyzers, heavy metals online monitoring equipment, on-line early-warning water quality monitoring equipment for biological toxicity 9.环境监测仪器制造: SO2 自动采 样器及测定仪、NOX 及 NO2 自动 采样器及测定仪、03 自动监测 仪、CO 自动监测仪、烟气及 Pm2.5 粉尘采样器及采样切割器、便携式 有毒有害气体测定仪、空气中有机 污染物自动分析仪、COD 自动在线 监测仪、BOD 自动在线监测仪、浊 度在线监测仪、DO 在线监测仪、

## 281. 环境监测仪器制造

Revised from 2011 Catalogue: Removed "automatic SO2 sample collectors and analyzers, automatic NOX and NO2 sample collectors and analyzers, automatic O3 monitors, automatic CO monitors, smoke and Pm2.5 particulate sampling tools and cutters, portable instruments for measuring toxic and hazardous gas, automatic analyzers for organic air pollutants, automatic online chemical oxygen demand (COD) monitors, automatic online biochemical oxygen demand (BOD) monitors, automatic online turbidity monitors, automatic online dissolved oxygen (DO) monitors, automatic online total organic carbon (TOC) monitors, automatic online ammonia and nitrogen monitors, radiation volume monitors and analyzers, heavy metals online monitoring equipment, on-line early-warning water quality monitoring equipment for biological toxicity"

environmental monitoring environmental monitoring 277. 环境监测仪器制造 280. 环境监测仪器制造

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TOC 在线监测仪、氨氮在线监测仪、辐射剂量检测仪、射线分析测试仪、重金属在线监测设备、在线生物毒性水质预警监控设备 ENCOURAGED 10. Manufacture of water-level data collection, processing and analysis, and flood-prevention warning	ENCOURAGED 282. Manufacture of water-level data collection, processing and analysis, and flood-prevention warning	ENCOURAGED 278. Manufacture of water-level data collection, processing and analysis, and flood-prevention warning	ENCOURAGED 281. Manufacture of water-level data collection, processing and analysis, and flood-prevention warning
devices and equipment  10. 水文数据采集、处理与传输和 防洪预警仪器及设备制造	devices and equipment 282. 水文数据采集、处理与传输和 防洪预警仪器及设备制造	devices and equipment 278. 水文数据采集、处理与传输和 防洪预警仪器及设备制造	devices and equipment 281. 水文数据采集、处理与传输和 防洪预警仪器及设备制造
ENCOURAGED  11. Manufacture of ocean exploration monitoring devices and equipment: mid-depth and lower seawater video recorders and cameras, multi-beam detectors, sonar for shallow and intermediate depths, saltwater navigation sonar, fluxgate compasses, hydraulic winches, underwater sealed electronic connectors, energy- recycling equipment for reverse osmosis desalination (efficiency > 90%), buoys for monitoring the marine ecological environment, buoys for profile detection, expendable conductivity- temperature-depth (XCTD) devices, field instruments for measuring water quality, intelligent chemical sensors for monitoring of marine	ENCOURAGED 283. Manufacture of ocean exploration monitoring devices and equipment 283.海洋勘探监测仪器和设备制造 Revised from 2011 Catalogue: Removed "mid-depth and lower seawater video recorders and cameras, multi-beam detectors, sonar for shallow and intermediate depths, saltwater navigation sonar, fluxgate compasses, hydraulic winches, underwater sealed electronic connectors, energy- recycling equipment for reverse osmosis desalination (efficiency > 90%), buoys for monitoring the marine ecological environment, buoys for profile detection, expendable conductivity-temperature-depth (XCTD) devices, field instruments for	ENCOURAGED 279. Manufacture of ocean exploration monitoring devices and equipment 279.海洋勘探监测仪器和设备制造	ENCOURAGED 282. Manufacture of ocean exploration monitoring devices and equipment 282.海洋勘探监测仪器和设备制造

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water quality (consecutive operation of 3-6 months), electromagnetic current meters, acoustic Doppler current profilers (ADCP) (selfcontained, read-display, and shipbased), CTD profilers, acoustic response releasers, deep-sea tidemeasuring systems (based on the seafloor)  11.海洋勘探监测仪器和设备制造:中深海水下摄像机和水下照相机、多波束探测仪、中浅地层剖面探测仪、走航式温盐深探测仪、磁通门罗盘、液压绞车、水下密封电子连接器、效率 > 90%的反渗透海水淡化用能量回收装置、海洋生态系统监测浮标、剖面探测浮标、一次性使用的电导率温度和深度测量仪器(XCTD)、现场水质测量仪器、智能型海洋水质监测用化学传感器(连续工作 3~6 个月)、电磁海流计、声学多普勒海流剖面仪(自容式、直读式和船用式)、电导率温度深度剖面仪、声学应答释放器、远洋深海潮汐测量系统(布设海底)	measuring water quality, intelligent chemical sensors for monitoring of marine water quality (consecutive operation of 3-6 months), electromagnetic current meters, acoustic Doppler current profilers (ADCP) (self-contained, read-display, and ship-based), CTD profilers, acoustic response releasers, deep-sea tide-measuring systems (based on the seafloor)"	
ENCOURAGED  12. Manufacture of digital cameras with resolution above 10 million pixels	Deleted	

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12.1000 万像素以上数字照相机制 造			
ENCOURAGED  13. Manufacture of office machinery: Integrated multi-function office equipment (copy, print, fax, and scan), color printing equipment, highresolution color printers and printer heads at a precision of 2,400 dpi or more, and light-sensitive drums  13.办公机械造:多功能一体化办公设备(复印、打印、传真、扫描),彩色打印设备,精度  2400dpi 及以上高分辨率彩色打印机头,感光鼓	Deleted		
ENCOURAGED 14. Manufacture of movie machinery: 2K and 4K digital cinema projectors, digital movie cameras, digital video production, and editing equipment 14.电影机械制造:2K、4K 数字电 影放映机,数字电影摄像机,数字	Deleted		
(二十三)工艺品及其他制造业 (23) Crafts and other manufacturing industries	(二十四)废弃资源综合利用业(24	) Crafts and other manufacturing indus	tries
Manufacture of equipment for, and development of products and technologies for clean coal	Recategorized: Moved from "Crafts and other manufacturing industries" to "Specialized equipment	See ENCOURAGED at 202. 202. Manufacture and development of equipment, products and	See ENCOURAGED at 202. 202. Manufacture and development of equipment, products and

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(gasification, liquefaction, coal-water slurry, and industrial coal) 1.洁净煤技术产品的开发利用及设备制造(煤炭气化、液化、水煤浆、工业型煤)	manufacturing" See ENCOURAGED at 202. 202. Manufacture and development of equipment, products and technologies for clean coal (gasification, liquefaction, coal-water slurry, and industrial coal) 202.洁净煤技术产品的开发利用及设备制造(煤炭气化、液化、水煤浆、工业型煤)	technologies for clean coal (gasification, liquefaction, coal-water slurry, and industrial coal) 202.洁净煤技术产品的开发利用及 设备制造(煤炭气化、液化、水煤 浆、工业型煤)	technologies for clean coal (gasification, liquefaction, coal-water slurry, and industrial coal) 202.洁净煤技术产品的开发利用及 设备制造(煤炭气化、液化、水煤 浆、工业型煤)		
ENCOURAGED  2. Coal washing and the comprehensive utilization of coal ash (including desulfurized gypsum) and coal refuse  2. 煤炭洗选及粉煤灰(包括脱硫石膏)、煤矸石等综合利用	ENCOURAGED 284. Coal washing and the comprehensive utilization of coal ash (including desulfurized gypsum) and coal refuse 284. 煤炭洗选及粉煤灰(包括脱硫石膏)、煤矸石等综合利用	ENCOURAGED 280. Coal washing and the comprehensive utilization of coal ash (including desulfurized gypsum) and coal refuse 280.煤炭洗选及粉煤灰(包括脱硫 石膏)、煤矸石等综合利用	ENCOURAGED 283. Coal washing and the comprehensive utilization of coal ash (including desulfurized gypsum) and coal refuse 283.煤炭洗选及粉煤灰(包括脱硫石膏)、煤矸石等综合利用		
ENCOURAGED 3. Manufacture of biodegradable materials 3.全生物降解材料的生产	ENCOURAGED 285. Manufacture of biodegradable materials 285.全生物降解材料的生产	ENCOURAGED 281. Manufacture of biodegradable materials 281.全生物降解材料的生产	ENCOURAGED 284. Manufacture of biodegradable materials 284.全生物降解材料的生产		
ENCOURAGED  4. Recycling of waste electrical and electronic products, autos, electrical equipment, rubber, metal, and batteries  4. 废旧电器电子产品、汽车、机电设备、橡胶、金属、电池回收处理	ENCOURAGED 286. Recycling of waste electrical and electronic products, autos, electrical equipment, rubber, metal, and batteries 286.废旧电器电子产品、汽车、机电设备、橡胶、金属、电池回收处理	electronic products, autos, electrical equipment, rubber, metal, and batteries	ENCOURAGED 285. Recycling of waste electrical and electronic products, autos, electrical equipment, rubber, metal, and batteries 285.废旧电器电子产品、汽车、机电设备、橡胶、金属、电池回收处理		
四、电力、煤气及水的生产和供应处	四、电力、煤气及水的生产和供应业 IV. Production and Supply of Electric Power, Gas, and Water				

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ENCOURAGED	Deleted		
1. Construction and operation of			
power stations utilizing clean-coal technology, including integrated coal			
gasification combined cycle (IGCC)			
technology, circulating fluidized bed			
technology of 300,000 kW and above,			
or pressurized fluidized bed			
combustion (PFBC) technology of			
100,000 kW or more			
1.采用整体煤气化联合循环			
(IGCC)、30万千瓦及以上循环流			
化床、10万千瓦及以上增压循环流			
化床(PFBC)洁净燃烧技术电站的			
建设、经营			
	ENCOURAGED	ENCOURAGED	ENCOURAGED
	287. Construction and operation of	283. Construction and operation of	286. Construction and operation of
	ultra-supercritical unit power stations	ultra-supercritical unit power stations	ultra-supercritical unit power stations
	with single generator capacity of	with single generator capacity of	with single generator capacity of
	600,000 kilowatts or more	600,000 kilowatts or more	600,000 kilowatts or more
	287.单机 60 万千瓦及以上超超临界	283.单机 60 万千瓦及以上超超临界	286.单机 60 万干瓦及以上超超临界
	机组电站的建设、经营	机组电站的建设、经营	机组电站的建设、经营
	Added		
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
2. Construction and operation of	288. Construction and operation	284. Construction and operation	287. Construction and operation
back-pressure thermal-electrical co-	stations of back-pressure (extraction	stations of back-pressure (extraction	stations of back-pressure thermal-
generation stations	back) thermal-electrical co-	back) thermal-electrical co-	electrical co-generation,
2.背压型热电联产电站的建设、经	generation, thermoelectric cooling co-generation, thermal-electrical co-	generation, thermoelectric cooling co-generation, thermal-electrical co-	thermoelectric cooling co-generation, thermal-electrical co-generation units
营	generation units with capacity of	generation units with capacity of	with capacity of 300,000 kilowatts or
	300,000 kilowatts or more	300,000 kilowatts or more	more
	288.采用背压(抽背)型热电联	284.采用背压(抽背)型热电联	287. 采用背压型热电联产、热电冷
		1 1 C C 1 T CC: .	

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产、热电冷多联产、30 万千瓦及以 上热电联产机组电站的建设、经营 Revised from 2011 Catalogue: Added "extraction back", and "thermal- electrical co-generation, thermal- electrical co-generation units with capacity of 300,000 kilowatts or more"		多联产、30万千瓦及以上热电联产机组电站的建设、经营。 Revised from 2015 Catalogue and 2016 draft: deleted "(extraction back)"
power stations in water-deficient areas that have large air cooling units with single generator capacity of 600,000 kilowatts or more 289.缺水地区单机 60 万千瓦及以上	with single generator capacity of 600,000 kilowatts or more	ENCOURAGED 288. Construction and operation of power stations in water-deficient areas that have large air cooling units with single generator capacity of 600,000 kilowatts or more 288.缺水地区单机 60 万千瓦及以上 大型空冷机组电站的建设、经营
290. Construction and operation of	ENCOURAGED 286. Construction and operation of clean coal power generation projects, including integrated gasification combined cycle generation projects 286.整体煤气化联合循环发电等洁净煤发电项目的建设、经营	ENCOURAGED 289. Construction and operation of clean coal power generation projects, including integrated gasification combined cycle generation projects 289.整体煤气化联合循环发电等洁净煤发电项目的建设、经营
291. Construction and operation of power generation projects with single generator capacity of 300,000 kilowatts or more that adopt fluidized-bed boiler and using coal	ENCOURAGED 287. Construction and operation of power generation projects with single generator capacity of 300,000 kilowatts or more that adopt fluidized-bed boiler and using coal gangue, middlings, coal slime, etc.	ENCOURAGED 290. Construction and operation of power generation projects with single generator capacity of 300,000 kilowatts or more that adopt fluidized-bed boiler and using coal gangue, middlings, coal slime, etc.

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ENCOURAGED 3. Construction and operation of hydropower stations used primarily	291.单机 30 万千瓦及以上采用流化 床锅炉并利用煤矸石、中煤、煤泥 等发电项目的建设、经营 Added ENCOURAGED 292. Construction and operation of hydropower stations used primarily	287.单机 30 万千瓦及以上采用流化床锅炉并利用煤矸石、中煤、煤泥等发电项目的建设、经营ENCOURAGED 288. Construction and operation of hydropower stations used primarily	290. 单机 30 万千瓦及以上采用流化床锅炉并利用煤矸石、中煤、煤泥等发电项目的建设、经营ENCOURAGED 291. Construction and operation of hydropower stations used primarily
for power generation 3.发电为主水电站的建设、经营	for power generation 292.发电为主水电站的建设、经营	for power generation 288.发电为主水电站的建设、经营	for power generation 291.发电为主水电站的建设、经营
ENCOURAGED  4. Construction and operation of nuclear power stations (Chinese majority control)  4.核电站的建设、经营(中方控股)	ENCOURAGED 293. Construction and operation of nuclear power stations (Chinese majority control) 293.核电站的建设、经营(中方控股)	ENCOURAGED 289. Construction and operation of nuclear power stations 289.核电站的建设、经营 Revised from 2015 Catalogue: Deleted requirement for Chinese majority control, but list the requirement in Restricted List Item 12: RESTRICTED 12. Construction and operation of nuclear power plants (Chinese shareholding) 12. 核电站的建设、经营(中方控股)	ENCOURAGED 292. Construction and operation of nuclear power stations 292.核电站的建设、经营 Revised from 2015 Catalogue: Deleted requirement for Chinese majority control, but list the requirement in Restricted List Item 12: RESTRICTED 12. Construction and operation of nuclear power plants (Chinese shareholding) 12. 核电站的建设、经营(中方控 股)
solar, wind, magnetic, geothermal,	ENCOURAGED 294. Construction and operation of new-energy power stations (including solar, wind, magnetic, geothermal, tidal, wave, and biomass energy, etc.) 294.新能源电站(包括太阳能、风	solar, wind, magnetic, geothermal,	ENCOURAGED 293. Construction and operation of new-energy power stations (including solar, wind, magnetic, geothermal, tidal, wave, and biomass energy, etc.) 293.新能源电站(包括太阳能、风

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能、地热能、潮汐能、波浪能、生物质能等)建设、经营  See RESTRICTED at 四、电力、煤气及水的生产和供应业 IV. Production and Supply of Power, Gas and Water 2. Construction and operation of electricity grids (Chinese majority control) 2. 电网的建设、经营(中方控股)	浪能、生物质能等)建设、经营 ENCOURAGED 295. Construction and operation of electricity grids (Chinese majority control) 295. 电网的建设、经营(中方控股) Revised from 2011 Catalogue: Moved from Restricted list to Encouraged list but with requirement of Chinese majority control still remaining	能、地热能、潮汐能、潮流能、波浪能、生物质能等)建设、经营 ENCOURAGED 291. Construction and operation of electricity grids 291.电网的建设、经营 Revised from 2015 Catalogue: Deleted requirement for Chinese majority control, but requirements remain in Restricted List Item 13 RESTRICTED 13. Construction and operation of electricity grids (Chinese party holding) 13. 电网的建设、经营(中方控股)	能、地热能、潮汐能、潮流能、波浪能、生物质能等)建设、经营 ENCOURAGED 294. Construction and operation of electricity grids 294.电网的建设、经营 Revised from 2015 Catalogue: Deleted requirement for Chinese majority control, but requirements remain in Restricted List Item 13 RESTRICTED 13. Construction and operation of electricity grids (Chinese party holding) 13. 电网的建设、经营(中方控股)
ENCOURAGED  6. Utilization of seawater (direct use of seawater, desalination)  6.海水利用(海水直接利用、海水	ENCOURAGED 296. Utilization of seawater (direct use of seawater, desalination) 296.海水利用(海水直接利用、海 水淡化)	ENCOURAGED 292. Utilization of seawater (direct use of seawater, desalination) 292.海水利用(海水直接利用、海 水淡化)	ENCOURAGED 295. Utilization of seawater (direct use of seawater, desalination) 295.海水利用(海水直接利用、海水淡化)
ENCOURAGED 7. Construction and operation of water supply plants 7.供水厂建设、经营	ENCOURAGED	ENCOURAGED	ENCOURAGED
	297. Construction and operation of	293. Construction and operation of	296. Construction and operation of
	water supply plants	water supply plants	water supply plants
	297.供水厂建设、经营	293.供水厂建设、经营	296.供水厂建设、经营
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
8. Construction and operation of	298. Construction and operation of	294. Construction and operation of	297. Construction and operation of
water-recycling factories	water-recycling factories	water-recycling factories	water-recycling factories
8.再生水厂建设、运营	298.再生水厂建设、经营	294.再生水厂建设、经营	297.再生水厂建设、经营

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See Restricted list at	ENCOURAGED	ENCOURAGED	ENCOURAGED
九、水利、环境和公共设施管理业	299. Construction and operation of	295. Construction and operation of	298. Construction and operation of
IX. Water Conservation, Environment	sewage treatment plants	sewage treatment plants	sewage treatment plants
and Public Facilities Management	299.污水处理厂建设、经营	295.污水处理厂建设、经营	298.污水处理厂建设、经营
4. 污水、垃圾处理厂,危险废物处	Revised from 2011 Catalogue: Moved		
理处置厂(焚烧厂、填埋场)及环	sewage treatment to the Encouraged		
境污染治理设施的建设、经营	section		
4. Construction and operation of			
sewage, waste treatment plant,			
hazardous waste treatment and			
disposal plant (incineration plant,			
landfill) and environmental pollution			
control facilities			
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
9. Construction and operation of	300. Construction and operation of	296. Construction and operation of	299. Construction and operation of
vehicle battery charging stations and	vehicle battery charging stations and	vehicle battery charging stations and	vehicle battery charging stations and
battery replacement stations	battery replacement stations	battery replacement stations	battery replacement stations
9.机动车充电站、电池更换站建	300.机动车充电站、电池更换站建	296.机动车充电站、电池更换站建	299.机动车充电站、电池更换站建
设、经营	设、经营	设、经营	设、经营
			ENCOURAGED
			300.Hydropower station construction
			and operation
			300. 加氢站建设、经营
			Added
五 , 交通运输、仓储和邮政业 V.	Transportation, warehousing and post	al services	
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
1. Construction and operation of	301. Construction and operation of	297. Construction and operation of	301. Construction and operation of
main line railroad networks (Chinese	main line railroad networks (Chinese	main line railroad networks	main line railroad networks
majority control)	majority control)	297. 铁路干线路网的建设、经营	301. 铁路干线路网的建设、经营
		Revised from 2015 Catalogue:	Revised from 2015 Catalogue:
		Deleted Chinese majority control	Deleted Chinese majority control
# = I . I	ution by the US China Pusiness Counsil t		

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

1.铁路干线路网的建设、经营(中方控股)	301.铁路干线路网的建设、经营 (中方控股)	requirement, but requirement remains in restricted list item 15 RESTRICTED 15. Construction and operation of railway trunk network (Chinese party holding) 15. 铁路干线路网的建设、经营 (中方控股)	requirement, but requirement remains in restricted list item 15 RESTRICTED 15. Construction and operation of railway trunk network (Chinese party holding) 15. 铁路干线路网的建设、经营(中方控股)
ENCOURAGED  2. Construction and operation of branch railway lines, as well as local railways and bridges, tunnels, ferries, and station yard facilities (limited to EJVs and CJVs)  2.支线铁路、地方铁路及其桥梁、隧道、轮渡和站场设施的建设、经营(限于合资、合作)	302. Intercity railways, railways operating in urban (suburban) regions, railways used for resources development, and branch railway lines, as well as associated bridges, tunnels, ferries and station yard facilities 302.城际铁路、市域(郊)铁路、资源型开发铁路和支线铁路及其桥梁、隧道、轮渡和站场设施的建设、经营Revised from 2011 Catalogue: Added "intercity railways, railways operating in urban (suburban) regions, railways used for resources development"; deleted "local railways"; formally limited the scope of "bridges, tunnels, ferries and station yard facilities" to those connected with encouraged types of railways; also eliminated previous requirements for CJVs and EJVs	ENCOURAGED 298. Intercity railways, railways operating in urban (suburban) regions, railways used for resources development, and branch railway lines, as well as associated bridges, tunnels, ferries and station yard facilities 298.城际铁路、市域(郊)铁路、资源型开发铁路和支线铁路及其桥梁、隧道、轮渡和站场设施的建设、经营	ENCOURAGED 302.Intercity railways, railways operating in urban (suburban) regions, railways used for resources development, and branch railway lines, as well as associated bridges, tunnels, ferries and station yard facilities 302 城际铁路、市域(郊)铁路、 资源型开发铁路和支线铁路及其桥 梁、隧道、轮渡和站场设施的建 设、经营
ENCOURAGED 3. Comprehensive maintenance of	ENCOURAGED 303. Comprehensive maintenance of	ENCOURAGED 299. High - speed railway, inter - city	ENCOURAGED 303. High - speed railway, inter - city

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basic infrastructure for high-speed railways, dedicated railway passenger lines, and intercity railways (Chinese majority control)  3.高速铁路、铁路客运专线、城际铁路基础设施综合维修(中方控股)	basic infrastructure for high-speed railways, dedicated railway passenger lines, and intercity railways 303.高速铁路、铁路客运专线、城际铁路基础设施综合维修 Revised from 2011 Catalogue: Removed "Chinese majority control"	railway infrastructure comprehensive maintenances 299. 高速铁路、城际铁路基础设施 综合维修	railway infrastructure comprehensive maintenances 303. 高速铁路、城际铁路基础设施综合维修
ENCOURAGED 4. Construction and operation of highways, independent bridges, and tunnels 4.公路、独立桥梁和隧道的建设、经营	ENCOURAGED 304. Construction and operation of highways, independent bridges, and tunnels 304.公路、独立桥梁和隧道的建 设、经营	ENCOURAGED 300. Construction and operation of highways, independent bridges, and tunnels 300.公路、独立桥梁和隧道的建设、经营	ENCOURAGED 304. Construction and operation of highways, independent bridges, and tunnels 304.公路、独立桥梁和隧道的建 设、经营
ENCOURAGED 5. Road freight transportation companies 5.公路货物运输公司	ENCOURAGED 305. Road freight transportation companies 305.公路货物运输公司	ENCOURAGED 301. Road freight transportation companies 301.公路货物运输公司	ENCOURAGED 305. Road freight transportation companies 305.公路货物运输公司
ENCOURAGED 6.Construction and operation of public dock facilities at ports 6.港口公用码头设施的建设、经营	ENCOURAGED 306. Construction and operation of public dock facilities at ports 306.港口公用码头设施的建设、经 营	ENCOURAGED 302. Construction and operation of public dock facilities at ports 302.港口公用码头设施的建设、经 营	ENCOURAGED 306. Construction and operation of public dock facilities at ports 306.港口公用码头设施的建设、经营
ENCOURAGED 7. Construction and operation of civil airports (Chinese side must hold the largest relative controlling interest) 7.民用机场的建设、经营(中方相对控股)	ENCOURAGED 307. Construction and operation of civil airports (Chinese side must hold the largest relative controlling interest) 307.民用机场的建设、经营(中方相对控股)	ENCOURAGED 303. Construction and operation of civilian transportation airports 303. 民用运输机场的建设、经营 Revised from 2015 Catalogue: Deleted requirement for Chinese party to hold controlling interest But requirement remains at Restricted List Item 18	ENCOURAGED 307. Construction and operation of civilian airports 307. 民用机场的建设、经营 Revised from 2015 Catalogue: Deleted requirement for Chinese party to hold controlling interest But requirement remains at Restricted List Item 18

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ENCOURAGED 8. Air carrier shipping companies (Chinese majority control) 8.航空运输公司(中方控股)	ENCOURAGED 308. Air transport companies (Chinese majority control, and any one foreign party or its affiliates may account for no more than 25% of investment) 308.航空运输公司(中方控股,且 一家外商及其关联企业投资比例不得超过 25%) Revised from 2011 Catalogue: Added language stating that "any one foreign party or its affiliates may account for no more than 25% of investment"	RESTRICTED  18. Construction and operation of civilian airports (relative holding by the Chinese party)  18. 民用机场的建设、经营(中方相对控股)  ENCOURAGED  304. Public air transport companies  304.公共航空运输公司(中方控股,且一家外商及其关联企业投资比例不得超过 25%,法定代表人须具有中国国籍)  Revised from 2015 Catalogue: Replaced "air transport" with "public air transport"	RESTRICTED  18. Construction and operation of civilian airports (relative holding by the Chinese party)  18. 民用机场的建设、经营(中方相对控股)  ENCOURAGED  308. Public air transport companies  308.公共航空运输公司  Revised from 2015 Catalogue: Replaced "air transport" with "public air transport"; Deleted requirements on investment caps and controlling stakes, but requirements remain at Restricted List item 19  RESTRICTED  19. Public air transport company (the Chinese party must be the controlling shareholder; the investment proportion of a foreign investor and its affiliated enterprises shall not exceed 25% and the legal representative shall have Chinese nationality)  19. 公共航空运输公司(中方控股,且一家外商及其关联企业投资比例不得超过25%,法定代表人须具有中国国籍)
9. General purpose airline companies serving the agriculture, forestry, and fisheries industries (limited to EJVs	ENCOURAGED 309. General purpose airline companies serving the agriculture, forestry, and fisheries industries	ENCOURAGED 305. General aviation, forestry, fishing and fishery 305. 农、林、渔业通用航空公司	ENCOURAGED 309. General aviation, forestry, fishing and fishery 309. 农、林、渔业通用航空公司

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

and CJVs)  9.农、林、渔业通用航空公司(限于合资、合作)	(limited to EJVs and CJVs) 309.农、林、渔业通用航空公司 (限于合资、合作)	requirement for Chinese party to hold controlling interest; but also listed on restricted list item 20. RESTRICTED 20. General aviation companies (the legal representative must be of Chinese nationality; agricultural, forestry, and fisheries-related general aviation companies are limited to joint ventures and CJVs; for other general aviation companies the	Revised from 2015 Catalogue: Deletes requirement for Chinese party to hold controlling interest; but also listed on restricted list item 20. RESTRICTED 20. General aviation companies (the legal representative must be of Chinese nationality; agricultural, forestry, and fisheries-related general aviation companies are limited to joint ventures and CJVs; for other general aviation companies the Chinese side must hold the controlling share) 20. 通用航空公司(法定代表人须具有中国国籍,其中农、林、渔业通用航空公司限于合资、合作,其他通用航空公司限于合资、合作,其
ENCOURAGED  10. Periodic and aperiodic international marine transportation services (Chinese majority control)  10.定期、不定期国际海上运输业务 (中方控股)	ENCOURAGED 310. Periodic and aperiodic international marine transportation services 310. 定期、不定期国际海上运输业 务(限于合资、合作) Revised from 2011 Catalogue: Changed "Chinese majority control" to "limited to EJVs and CJVs"	ENCOURAGED 306. International maritime transport companies 306. 国际海上运输公司 Revised from 2015 Catalogue: Removed "periodic and aperiodic" and removed "limited to EJVs and CJVs", but also listed on restricted list item 17 RESTRICTED 17. Domestic water transport companies (Chinese party holdings), international maritime transport companies (limited to joint ventures, cooperation)	ENCOURAGED 310. International maritime transport companies 310. 国际海上运输公司 Revised from 2015 Catalogue: Removed "periodic and aperiodic" and removed "limited to EJVs and CJVs", but also listed on restricted list item 17 RESTRICTED 17. Domestic water transport companies (Chinese party holdings), international maritime transport companies (limited to joint ventures, cooperation)

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		17. 国内水上运输公司(中方控	17. 国内水上运输公司(中方控	
		股),国际海上运输公司(限于合	股),国际海上运输公司(限于合	
		资、合作)	资、合作)	
ENCOURAGED 11. International multi-style container transportation cooperative business 11.国际集装箱多式联运业务	ENCOURAGED 311. International multi-style container transportation cooperative business 311.国际集装箱多式联运业务	ENCOURAGED 307. International multi-style container transportation cooperative business 307.国际集装箱多式联运业务	ENCOURAGED 311. International multi-style container transportation cooperative business 311.国际集装箱多式联运业务	
ENCOURAGED 12. Construction and operation of oil (gas) pipelines, oil (gas) depots 12.输油(气)管道、油(气)库的 建设、经营	ENCOURAGED 312. Construction and operation of oil (gas) pipelines, oil (gas) depots 312.输油(气)管道、油(气)库的建设、经营	ENCOURAGED 308. Construction and operation of oil (gas) pipelines, oil (gas) depots 308.输油(气)管道、油(气)库 的建设、经营	ENCOURAGED 312. Construction and operation of oil (gas) pipelines, oil (gas) depots 312.输油(气)管道、油(气)库的建设、经营	
ENCOURAGED 13. Construction and operation of coal pipeline transport facilities 13.煤炭管道运输设施的建设、经营	ENCOURAGED 313. Construction and operation of coal pipeline transport facilities 313.煤炭管道运输设施的建设、经营	ENCOURAGED 309. Construction and operation of coal pipeline transport facilities 309.煤炭管道运输设施的建设、经 营	ENCOURAGED 313. Construction and operation of coal pipeline transport facilities 313.煤炭管道运输设施的建设、经营	
ENCOURAGED 14. Construction and operation of automatic storage & retrieval system (AS/RS), storage facilities relating to transportation 14.自动化高架立体仓储设施、运输业务相关的仓储设施建设、经营	ENCOURAGED 314. Construction and operation of automatic storage & retrieval system (AS/RS), storage facilities relating to transportation 314.自动化高架立体仓储设施,包装、加工、配送业务相关的仓储一体化设施建设、经营	ENCOURAGED 310. Construction and operation of automatic storage & retrieval system (AS/RS), storage facilities relating to transportation 310.自动化高架立体仓储设施,包装、加工、配送业务相关的仓储一体化设施建设、经营	ENCOURAGED 314. Construction and operation of automatic storage & retrieval system (AS/RS), storage facilities relating to transportation 314.自动化高架立体仓储设施,包装、加工、配送业务相关的仓储一体化设施建设、经营	
六、批发和零售业 VI. Wholesald	六、批发和零售业 VI. Wholesale and retail trade			
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED	
Modern logistics and related		311. Logistics and related technical	315. Logistics and related technical	

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technical services such as the joint distribution of general goods and low-temperature distribution of fresh products  1.一般商品的共同配送、鲜活农产品低温配送等现代物流及相关技术服务	services such as the joint distribution of general goods and the low-temperature distribution of fresh products and special medicines 315.一般商品的共同配送、鲜活农产品和特殊药品低温配送等物流及相关技术服务  Revised from 2011 Catalogue: Added "special medicines" and deleted "modern"	services such as the joint distribution of general goods and the low-temperature distribution of fresh products and special medicines 311.一般商品的共同配送、鲜活农产品和特殊药品低温配送等物流及相关技术服务	services such as the joint distribution of general goods and the low-temperature distribution of fresh products and special medicines 315.一般商品的共同配送、鲜活农产品和特殊药品低温配送等物流及相关技术服务
ENCOURAGED 2. Rural distribution networks 2.农村连锁配送	ENCOURAGED 316. Rural distribution networks 316.农村连锁配送	ENCOURAGED 312. Rural distribution networks 312.农村连锁配送	ENCOURAGED 316. Rural distribution networks 316.农村连锁配送
ENCOURAGED 3. Construction and operation of pallet pooling systems 3. 托盘及集装单元共用系统建设、	ENCOURAGED 317. Construction and operation of pallet pooling systems 317. 托盘及集装单元共用系统建设、经营	ENCOURAGED 313. Construction and operation of pallet pooling systems 313.托盘及集装单元共用系统建设、经营	ENCOURAGED 317. Construction and operation of pallet pooling systems 317. 托盘及集装单元共用系统建设、经营
七、租赁和商务服务业 VII. Leas	ing and business services		
ENCOURAGED  1. Accounting and auditing (limited to CJVs and partnerships)  1. 会计、审计(限于合作、合伙)	ENCOURAGED 318. Accounting and auditing (principal partner must have Chinese nationality) 318. 会计、审计(首席合伙人需具有中国国籍) Revised from 2011 Catalogue: Deleted "limited to CJVs and partnerships" and added "principal partner must have Chinese nationality"	Deleted	Deleted

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ENCOURAGED  2. Informational consulting services in international economics, technology and science, environmental protection, and logistics  2. 国际经济、科技、环保、物流信息咨询服务	ENCOURAGED 319. Informational consulting services in international economics, technology and science, environmental protection, and logistics 319. 国际经济、科技、环保、物流 信息咨询服务	ENCOURAGED 314. Informational consulting services in international economics, technology and science, environmental protection, and logistics 314. 国际经济、科技、环保、物流 信息咨询服务	ENCOURAGED 318. Informational consulting services in international economics, technology and science, environmental protection, and logistics 318. 国际经济、科技、环保、物流信息咨询服务
ENCOURAGED  3. Information technology and services outsourcing involving system application management and maintenance, information technology support management, bank backoffice services, financial settlement, human resources services, software development, offshore call centers and data processing, or other information technology and business processing services (BPO)  3.以承接服务外包方式从事系统应用管理和维护、信息技术支持管理、银行后台服务、财务结算、人力资源服务、软件开发、离岸呼叫中心、数据处理等信息技术和业务流程外包服务	ENCOURAGED 320. Information technology and services outsourcing involving system application management and maintenance, information technology support management, bank backoffice services, financial settlement, software development, offshore call centers and data processing, or other information technology and business processing services (BPO) 320.以承接服务外包方式从事系统应用管理和维护、信息技术支持管理、银行后台服务、财务结算、软件开发、离岸呼叫中心、数据处理等信息技术和业务流程外包服务Revised from 2011 Catalogue: Removed "human resources services"	ENCOURAGED 315. Information technology and services outsourcing involving system application management and maintenance, information technology support management, bank backoffice services, financial settlement, software development, offshore call centers and data processing, or other information technology and business processing services (BPO) 315.以承接服务外包方式从事系统应用管理和维护、信息技术支持管理、银行后台服务、财务结算、软件开发、离岸呼叫中心、数据处理等信息技术和业务流程外包服务	ENCOURAGED 319. Information technology and services outsourcing involving system application management and maintenance, information technology support management, bank backoffice services, financial settlement, software development, offshore call centers and data processing, or other information technology and business processing services (BPO) 319.以承接服务外包方式从事系统应用管理和维护、信息技术支持管理、银行后台服务、财务结算、软件开发、离岸呼叫中心、数据处理等信息技术和业务流程外包服务
ENCOURAGED 4. Venture capital enterprises 4. 创业投资企业	ENCOURAGED 321. Venture capital enterprises 321. 创业投资企业	ENCOURAGED 316. Venture capital enterprises 316.创业投资企业	ENCOURAGED 320. Venture capital enterprises 320.创业投资企业
ENCOURAGED 5. Intellectual property rights (IPR)	ENCOURAGED 322. Intellectual property rights (IPR)	ENCOURAGED 317. Intellectual property rights (IPR)	ENCOURAGED 321. Intellectual property rights (IPR)

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

services	services	services	services
5. 知识产权服务	322. 知识产权服务	317.知识产权服务	321.知识产权服务
ENCOURAGED 6. Household services 6. 家庭服务业	ENCOURAGED 323. Household services 323. 家庭服务业	ENCOURAGED 318. Household services 318. 家庭服务业	ENCOURAGED 322. Household services 322. 家庭服务业
八、科学研究、技术服务和地质勘 查业 VIII. Scientific Research, Comprehensive Technological Services, and Geological Prospecting	八、科学研究和技术服务业 VIII. Scientific Research, Comprehensive Technological Services		
ENCOURAGED  1. Biological engineering and biomedical engineering technology, biomass energy development technology  1. 生物工程与生物医学工程技术、生物质能源开发技术	ENCOURAGED 324. Biological engineering and biomedical engineering technology, biomass energy development technology 324. 生物工程与生物医学工程技术、生物质能源开发技术	ENCOURAGED 319. Biological engineering and biomedical engineering technology, biomass energy development technology 319.生物工程与生物医学工程技术、生物质能源开发技术	ENCOURAGED 323. Biological engineering and biomedical engineering technology, biomass energy development technology 323.生物工程与生物医学工程技术、生物质能源开发技术
ENCOURAGED 2. Isotopic, irradiation and laser technologies 2. 同位素、辐射及激光技术	ENCOURAGED 325. Isotopic, irradiation and laser technologies 325. 同位素、辐射及激光技术	ENCOURAGED 320. Isotopic, irradiation and laser technologies 320.同位素、辐射及激光技术	ENCOURAGED 324. Isotopic, irradiation and laser technologies 324.同位素、辐射及激光技术
ENCOURAGED  3. Oceanic development and oceanic energy (development) technology, technology for comprehensive use of ocean chemical resources, related product development and refined processing technology, and ocean medicine and bio-chemical product development technology	ENCOURAGED 326. Oceanic development and oceanic energy (development) technology, technology for comprehensive use of ocean chemical resources, related product development and refined processing technology, and ocean medicine and bio-chemical product development technology	ENCOURAGED 321. Oceanic development and oceanic energy (development) technology, technology for comprehensive use of ocean chemical resources, related product development and refined processing technology, and ocean medicine and bio-chemical product development technology	ENCOURAGED 325. Oceanic development and oceanic energy (development) technology, technology for comprehensive use of ocean chemical resources, related product development and refined processing technology, and ocean medicine and bio-chemical product development technology

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

	1	l	
3. 海洋开发及海洋能开发技术、海	326.海洋开发及海洋能开发技术、	321.海洋开发及海洋能开发技术、	325.海洋开发及海洋能开发技术、
洋化学资源综合利用技术、相关产	海洋化学资源综合利用技术、相关	海洋化学资源综合利用技术、相关	海洋化学资源综合利用技术、相关
品开发和精深加工技术、海洋医药	产品开发和精深加工技术、海洋医	产品开发和精深加工技术、海洋医	产品开发和精深加工技术、海洋医
与生化制品开发技术	药与生化制品开发技术	药与生化制品开发技术	药与生化制品开发技术
ENCOURAGED 4. Ocean monitoring technology (ocean tides, weather, and environment monitoring), sea floor detection and ocean resources exploration and evaluation technology 4. 海洋监测技术(海洋浪潮、气 象、环境监测)、海底探测与大洋 资源勘查评价技术	ENCOURAGED 327. Ocean monitoring technology (ocean tides, weather, and environment monitoring), sea floor detection and ocean resources exploration and evaluation technology 327.海洋监测技术(海洋浪潮、气象、环境监测)、海底探测与大洋资源勘查评价技术	ENCOURAGED 322. Ocean monitoring technology (ocean tides, weather, and environment monitoring), sea floor detection and ocean resources exploration and evaluation technology 322.海洋监测技术(海洋浪潮、气象、环境监测)、海底探测与大洋资源勘查评价技术	ENCOURAGED 326. Ocean monitoring technology (ocean tides, weather, and environment monitoring), sea floor detection and ocean resources exploration and evaluation technology 326.海洋监测技术(海洋浪潮、气象、环境监测)、海底探测与大洋资源勘查评价技术
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
5. Comprehensive use of post-	328. Comprehensive use of post-	323. Comprehensive use of post-	327. Comprehensive use of post-
desalinization concentrated seawater	desalinization concentrated seawater	desalinization concentrated seawater	desalinization concentrated seawater
for salt manufacturing; extraction of	for salt manufacturing; extraction of	for salt manufacturing; extraction of	for salt manufacturing; extraction of
potassium, bromine, magnesium, and lithium as well as their deep	potassium, bromine, magnesium, and lithium as well as their deep	potassium, bromine, magnesium, and lithium as well as their deep	potassium, bromine, magnesium, and lithium as well as their deep
processing technologies and other	processing technologies and other	processing technologies and other	processing technologies and other
seawater chemical resource high	seawater chemical resource high	seawater chemical resource high	seawater chemical resource high
value-added utilization technologies	value-added utilization technologies	value-added utilization technologies	value-added utilization technologies
5. 综合利用海水淡化后的浓海水制	328.综合利用海水淡化后的浓海水	323.综合利用海水淡化后的浓海水	327.综合利用海水淡化后的浓海水
盐、提取钾、溴、镁、锂及其深加	制盐、提取钾、溴、镁、锂及其深	制盐、提取钾、溴、镁、锂及其深	制盐、提取钾、溴、镁、锂及其深
工等海水化学资源高附加值利用技	加工等海水化学资源高附加值利用	加工等海水化学资源高附加值利用	加工等海水化学资源高附加值利用
术	技术	技术	技术
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
6. Development of marine oil	329. Development of marine oil	324. Development of marine oil	328. Development of marine oil

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pollution clean-up and ecological restoration technologies and related products, water eutrophication prevention and control technology, technology to prevent and control sudden and damaging overgrowth of marine life, and technologies for ecological restoration of coastal environments  6. 海上石油污染清理与生态修复技术及相关产品开发,海水富营养化防治技术,海洋生物爆发性生长灾害防治技术,海岸带生态环境修复技术	pollution clean-up and ecological restoration technologies and related products, water eutrophication prevention and control technology, technology to prevent and control sudden and damaging overgrowth of marine life, and technologies for ecological restoration of coastal environments  329. 海上石油污染清理与生态修复技术及相关产品开发,海水富营养化防治技术,海洋生物爆发性生长灾害防治技术,海岸带生态环境修复技术	pollution clean-up and ecological restoration technologies and related products, water eutrophication prevention and control technology, technology to prevent and control sudden and damaging overgrowth of marine life, and technologies for ecological restoration of coastal environments 324.海上石油污染清理与生态修复技术及相关产品开发,海水富营养化防治技术,海洋生物爆发性生长灾害防治技术,海岸带生态环境修复技术	pollution clean-up and ecological restoration technologies and related products, water eutrophication prevention and control technology, technology to prevent and control sudden and damaging overgrowth of marine life, and technologies for ecological restoration of coastal environments  328.海上石油污染清理与生态修复技术及相关产品开发,海水富营养化防治技术,海洋生物爆发性生长灾害防治技术,海岸带生态环境修复技术
ENCOURAGED 7. Development of energy conservation technology and related services 7. 节能技术开发与服务	ENCOURAGED 330. Development of energy conservation and environmental protection technology and related services 330. 节能环保技术开发与服务 Revised from 2011 Catalogue: Added "environmental protection"	ENCOURAGED 325. Development of energy conservation and environmental protection technology and related services 325.节能环保技术开发与服务	ENCOURAGED 329. Development of energy conservation and environmental protection technology and related services 329.节能环保技术开发与服务
ENCOURAGED 8. Recycling and related applicable technologies, development and application of (enterprise) manufacturing emissions recycling technology 8. 资源再生及综合利用技术、企业生产排放物的再利用技术开发及其应用	ENCOURAGED 331. Recycling and related applicable technologies, development and application of (enterprise) manufacturing emissions recycling technology 331. 资源再生及综合利用技术、企业生产排放物的再利用技术开发及其应用	ENCOURAGED 326. Recycling and related applicable technologies, development and application of (enterprise) manufacturing emissions recycling technology 326. 资源再生及综合利用技术、企业生产排放物的再利用技术开发及其应用	ENCOURAGED 330. Recycling and related applicable technologies, development and application of (enterprise) manufacturing emissions recycling technology 330. 资源再生及综合利用技术、企业生产排放物的再利用技术开发及其应用

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ENCOURAGED 9. Environmental pollution treatment and monitoring technology 9. 环境污染治理及监测技术	ENCOURAGED 332. Environmental pollution treatment and monitoring technology 332. 环境污染治理及监测技术	ENCOURAGED 327. Environmental pollution treatment and monitoring technology 327. 环境污染治理及监测技术	ENCOURAGED 331. Environmental pollution treatment and monitoring technology 331. 环境污染治理及监测技术
ENCOURAGED  10. Energy reduction and waste management (gas, water and industrial residue) technology for synthetic fiber production, printing, and dyeing processes  10. 化纤生产及印染加工的节能降  耗、三废治理新技术	ENCOURAGED 333. Energy reduction and waste management (gas, water and industrial residue) technology for synthetic fiber production, printing, and dyeing processes 333. 化纤生产及印染加工的节能降 耗、三废治理新技术	ENCOURAGED 328. Energy reduction and waste management (gas, water and industrial residue) technology for synthetic fiber production, printing, and dyeing processes 328. 化纤生产及印染加工的节能降 耗、三废治理新技术	ENCOURAGED 332. Energy reduction and waste management (gas, water and industrial residue) technology for synthetic fiber production, printing, and dyeing processes 332. 化纤生产及印染加工的节能降 耗、三废治理新技术
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
11. Technology for the prevention	334. Technology for the prevention	329. Technology for the prevention	333. Technology for the prevention
and management of desertification	and management of desertification	and management of desertification	and management of desertification
11. 防沙漠化及沙漠治理技术	334. 防沙漠化及沙漠治理技术	329. 防沙漠化及沙漠治理技术	333. 防沙漠化及沙漠治理技术
ENCOURAGED	ENCOURAGED 335. Comprehensive management technology for grassland-livestock balance 335. 草畜平衡综合管理技术	ENCOURAGED	ENCOURAGED
12. Comprehensive management		330. Comprehensive management	334. Comprehensive management
technology for grassland-livestock		technology for grassland-livestock	technology for grassland-livestock
balance		balance	balance
12. 草畜平衡综合管理技术		330.草畜平衡综合管理技术	334.草畜平衡综合管理技术
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
13. Civilian satellite application	336. Civilian satellite application	331. Civilian satellite application	335. Civilian satellite application
technology	technology	technology	technology
13. 民用卫星应用技术	336. 民用卫星应用技术	331.民用卫星应用技术	335.民用卫星应用技术
ENCOURAGED	ENCOURAGED	ENCOURAGED	ENCOURAGED
14. Research and development	337. Research and development	332. Research and development	336. Research and development
centers	centers	centers	centers
14. 研究开发中心	337. 研究开发中心	332.研究开发中心	336.研究开发中心

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

ENCOURAGED  15. Centers for new- and high- technology development, new product development, and start-up incubators  ENCOURAGED  338. Centers for new- and high- technology development, new product development, and start-up incubators  ENCOURAGED  337. Centers for new- and high- technology development, new product development, and start-up incubators  incubators  incubators	, new
technology development, new product development, and start-up incubators technology development.	, new
product development, and start-up incubators	
incubators incubators incubators incubators	d start-up
15. 高新技术、新产品开发与企业     338. 高新技术、新产品开发与企业     333.高新技术、新产品开发与企业     337.高新技术、新产品开	F发与企业
孵化中心   孵化中心   孵化中心	
ENCOURAGED ENCOURAGED ENCOURAGED	
339. Development and application of 334. Development and application of 338. Development and application of	•
technologies for the Internet of technologies for the Internet of technologies for the Internet of	net of
Things Things Things	
339. 物联网技术开发与应用 334.物联网技术开发与应用 338.物联网技术开发与应用 338.物联网技术开发与应用	<b>対用</b>
Added	
ENCOURAGED ENCOURAGED ENCOURAGED	
340. Innovative industries such as 335. Innovative industries such as 339. Innovative industries	
industrial design, architectural industrial design, architectural industrial design, architectural	
design, and fashion design design, and fashion design design, and fashion design	
340. 工业设计、建筑设计、服装设   335.工业设计、建筑设计、服装设   339.工业设计、建筑设计	↑、服装设
计等创意产业	
Added Added	
九、水利、环境和公共设施管理业 IX. Water Conservancy, the Environment, and Public Infrastructure Management	
ENCOURAGED ENCOURAGED Deleted Deleted	
1. Construction and operation of key 341. Construction and operation of	
comprehensive water-conservancy key comprehensive water-	
hubs (Chinese majority control) conservancy hubs (Chinese majority	
1. 综合水利枢纽的建设、经营(中 control)	
方控股) 341. 综合水利枢纽的建设、经营	
(中方控股)	
ENCOURAGED ENCOURAGED ENCOURAGED	
2. Construction and operation of 342. Construction and operation of 336. Construction and operation of 340. Construction and operation of	eration of

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limited-access urban roads		limited-access urban roads.	limited-access urban roads.
2. 城市封闭型道路建设、经营	342. 城市封闭型道路建设、经营	336. 城市封闭型道路的建设、经营	340. 城市封闭型道路的建设、经营
ENCOURAGED 3. Construction and operation of metro, light rail, and other urban rapid transit systems (Chinese majority control) 3. 城市地铁、轻轨等轨道交通的建设、经营(中方控股)	ENCOURAGED 343. Construction and operation of metro, light rail, and other urban rapid transit systems 343. 城市地铁、轻轨等轨道交通的 建设、经营 Revised from 2011 Catalogue: Removed "Chinese majority control"	ENCOURAGED 337. Construction and operation of metro, light rail, and other urban rapid transit systems 337.城市地铁、轻轨等轨道交通的 建设、经营	ENCOURAGED 341. Construction and operation of metro, light rail, and other urban rapid transit systems 341.城市地铁、轻轨等轨道交通的 建设、经营
ENCOURAGED 4. Construction and operation of sewage treatment plants, garbage treatment plants, hazardous waste disposal and treatment plants (incineration plants, landfills), and environmental pollution control facilities 4.污水、垃圾处理厂,危险废物处理处置厂(焚烧厂、填埋场)及环境污染治理设施的建设、经营	ENCOURAGED 344. Construction and operation of garbage treatment plants, hazardous waste disposal and treatment plants (incineration plants, landfills), and environmental pollution control facilities 344. 垃圾处理厂,危险废物处理处置厂(焚烧厂、填埋场)及环境污染治理 设施的建设、经营Revised from 2011 Catalogue: Removed "sewage treatment plants" from this section and included it in IV.299 (encouraged)	ENCOURAGED 338. Construction and operation of garbage treatment plants, hazardous waste disposal and treatment plants (incineration plants, landfills), and environmental pollution control facilities 338. 垃圾处理厂,危险废物处理处置厂(焚烧厂、填埋场)及环境污染治理 设施的建设、经营	ENCOURAGED 342. Construction and operation of garbage treatment plants, hazardous waste disposal and treatment plants (incineration plants, landfills), and environmental pollution control facilities 342. 垃圾处理厂,危险废物处理处置厂(焚烧厂、填埋场)及环境污染治理 设施的建设、经营
		ENCOURAGED 339. Construction and operation of urban parking facilities 339. 城市停车设施的建设、经营 Added	ENCOURAGED 343. Construction and operation of urban parking facilities 343. 城市停车设施的建设、经营 Added
十、教育 X. Education			

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ENCOURAGED  1. Higher education institutions (limited to joint ventures, cooperation)  1. 高等教育机构(限于合资、合作)	Deleted		
ENCOURAGED  2. Vocational skills training  2. 职业技能培训	ENCOURAGED 345. Vocational skills training outside of the education system 345. 非学制类职业培训机构 Revised from 2011 Catalogue: Added "outside of the education system" to "vocational skills training"	ENCOURAGED 340. Vocational skills training outside of the education system 340. 非学制类职业培训机构	ENCOURAGED 344. Vocational skills training outside of the education system 344. 非学制类职业培训机构
十一、卫生、社会保障和社会福利 业 XI. Healthcare, Social Security, and Social Welfare Services	十一、卫生和社会工作 XI. Healthcar	e and Social Work	
ENCOURAGED  1. Service centers for the elderly, the disabled, and children  1. 老年人、残疾人和儿童服务机构	ENCOURAGED 346. Service centers for the elderly, the disabled, and children 346. 老年人、残疾人和儿童服务机 构 ENCOURAGED 347. Elder care organizations 347. 养老机构 Added	ENCOURAGED 341. Service centers for the elderly, the disabled, and children 341. 老年人、残疾人和儿童服务机构 ENCOURAGED 342. Elder care organizations 342. 养老机构	ENCOURAGED 345. Service centers for the elderly, the disabled, and children 345. 老年人、残疾人和儿童服务机构 ENCOURAGED 346. Elder care organizations 346. 养老机构
十二、文化、体育和娱乐业 XII. Culture, Sports, and Entertainment Industries			
ENCOURAGED  1. Operation of performance venues	ENCOURAGED 348. Operation of performance venues	ENCOURAGED 343. Operation of performance	ENCOURAGED 347. Operation of performance

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(Chinese majority control)		venues	venues
	348. 演出场所经营		
1. 演出场所经营(中方控股)	Revised from 2011 Catalogue: Removed "Chinese majority control"	343. 演出场所经营	347. 演出场所经营
ENCOURAGED		ENCOURAGED	ENCOURAGED
Operation of sports venues and		344. Operation of sports venues and	348. Operation of sports venues and
sports training and intermediary	·	sports training and intermediary	sports training and intermediary
services for fitness, competitions, and	services for fitness, competitions, and	·	services for fitness, competitions, and
performances	performances	performances	performances
2. 体育场馆经营、健身、竞赛表演	349. 体育场馆经营、健身、竞赛表	344. 体育场馆经营、健身、竞赛表	348. 体育场馆经营、健身、竞赛表
及体育培训和中介服务	演及体育培训和中介服务	演及体育培训和中介服务	演及体育培训和中介服务
	RESTRICTED 限制	外商投资产业目录	
	ture, forestry, animal husbandry,		
fishery, and related industries	1		
RESTRICTED	RESTRICTED	RESTRICTED	RESTRICTED
1. Selection and breeding of new		1. Selection and breeding of new	1. Selection and breeding of new
types of agricultural goods, and production of seeds (Chinese	types of agricultural goods, and production of seeds (Chinese	types of agricultural goods, and production of seeds (Chinese	types of agricultural goods, and production of seeds (Chinese
·			
majority control)	1.	· ·	•
majority control)  1.农作物新品种选育和种子生产	majority control)	majority control)	majority control)
1.农作物新品种选育和种子生产	majority control) 1.农作物新品种选育和种子生产	majority control) 1. 农作物新品种选育和种子生产	majority control) 1. 农作物新品种选育和种子生产
1.农作物新品种选育和种子生产 (中方控股)	majority control) 1.农作物新品种选育和种子生产 (中方控股)	majority control)	majority control)
1.农作物新品种选育和种子生产 (中方控股) 2. Processing of precious wood	majority control) 1.农作物新品种选育和种子生产	majority control) 1. 农作物新品种选育和种子生产	majority control) 1. 农作物新品种选育和种子生产
1.农作物新品种选育和种子生产 (中方控股) 2. Processing of precious wood (limited to CJVs and EJVs)	majority control) 1.农作物新品种选育和种子生产 (中方控股)	majority control) 1. 农作物新品种选育和种子生产	majority control) 1. 农作物新品种选育和种子生产
1.农作物新品种选育和种子生产 (中方控股) 2. Processing of precious wood (limited to CJVs and EJVs) 2.珍贵树种原木加工(限于合资、	majority control) 1.农作物新品种选育和种子生产 (中方控股)	majority control) 1. 农作物新品种选育和种子生产	majority control) 1. 农作物新品种选育和种子生产
1.农作物新品种选育和种子生产 (中方控股) 2. Processing of precious wood (limited to CJVs and EJVs)	majority control) 1.农作物新品种选育和种子生产 (中方控股)	majority control) 1. 农作物新品种选育和种子生产	majority control) 1. 农作物新品种选育和种子生产
1.农作物新品种选育和种子生产 (中方控股) 2. Processing of precious wood (limited to CJVs and EJVs) 2.珍贵树种原木加工(限于合资、 合作) 3. Processing of cotton (including	majority control) 1.农作物新品种选育和种子生产 (中方控股)	majority control) 1. 农作物新品种选育和种子生产	majority control) 1. 农作物新品种选育和种子生产
1.农作物新品种选育和种子生产 (中方控股) 2. Processing of precious wood (limited to CJVs and EJVs) 2.珍贵树种原木加工(限于合资、 合作)	majority control)  1.农作物新品种选育和种子生产 (中方控股)  Deleted	majority control) 1. 农作物新品种选育和种子生产	majority control) 1. 农作物新品种选育和种子生产

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(二) 采矿业 II. Mining			
ENCOURAGED SECTION AT 二,采矿业II. Mining  1. Exploration and development of coal bed methane; use of mining gas (limited to CJVs and EJVs)  1. 煤层气勘探、开发和矿井瓦斯利用(限于合资、合作)  2. Exploration and development of oil and natural gas (limited to CJVs and EJVs)  2. 石油、天然气的风险勘探、开发(限于合资、合作)  6. Exploration and development of oil shale, oil sand, heavy oil, ultra-heavy oil, and other non-conventional oil resources (limited to EJVs and CJVs)  6. 油页岩、油砂、重油、超重油等非常规石油资源勘探、开发(限于合资、合作)	ENCOURAGED  11. Exploration and development of oil and natural gas (including oil shale, oil sand, shale gas, coal bed methane and other non-conventional oil resources); use of mining gas (limited to CJVs and EJVs)  11. 石油、天然气(含油页岩、油砂、页岩气、煤层气等非常规油气)的勘探、开发和矿井瓦斯利用(限于合资、合作)	RESTRICTED  2. Exploration and development of oil and natural gas (including coalbed methane, oil shale, oil sands and shale gas) (limited to CJVs and EJVs)  2.石油、天然气 (含煤层气,油页岩、油砂、页岩气等除外) 的勘探、开发(限于合资、合作) Revised from 2015 Catalogue: Was listed in 2015 Catalogue as Encouraged (at 11) but because of the stipulation that investment be limited to CJVs and EJVs, it is now listed in the Restricted section	RESTRICTED  2. Exploration and development of oil and natural gas (including coalbed methane, oil shale, oil sands and shale gas) (limited to CJVs and EJVs)  2. 石油、天然气(含煤层气,油页岩、油砂、页岩气等除外)的勘探、开发(限于合资、合作) Revised from 2015 Catalogue: Was listed in 2015 Catalogue as Encouraged (at 11) but because of the stipulation that investment be limited to CJVs and EJVs, it is now listed in the Restricted section
RESTRICTED  1. Surveying and mining of special and rare coal (Chinese majority control)  1.特殊和稀缺煤类勘查、开采(中方控股)	RESTRICTED  1. Surveying and mining of special and rare coal (Chinese majority control)  1.特殊和稀缺煤类勘查、开采(中方控股)	RESTRICTED  3. Surveying and mining of special and rare coal (Chinese majority control)  3. 特殊和稀缺煤类勘查、开采(中方控股)	RESTRICTED 3. Surveying and mining of special and rare coal (Chinese majority control) 3. 特殊和稀缺煤类勘查、开采(中方控股)
RESTRICTED  2. Surveying and mining of barite (limited to CJVs and EJVs)	Deleted		

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2.重晶石勘查、开采(限于合资、合作)			
RESTRICTED 3. Surveying and mining of precious metals (gold, silver, and platinum) 3.贵金属(金、银、铂族)勘查、	RESTRICTED 3. Surveying and mining of precious metals (gold, silver, and platinum) 3.贵金属(金、银、铂族)勘查、	Deleted	Deleted
RESTRICTED 4. Surveying and mining of critical nonmetal ores such as diamonds, high alumina refractory cement, wollastonite, and graphite 4.金刚石、高铝耐火粘土、硅灰石、石墨等重要非金属矿的勘查、开采	RESTRICTED 4. Surveying and mining of graphite 4. 石墨勘查、开采 Revised from 2011 Catalogue: Removed "critical nonmetal ores such as diamonds, high alumina refractory cement, [and] wollastonite"	RESTRICTED 4. Surveying and mining of graphite 4. 石墨勘查、开采	RESTRICTED 4. Surveying and mining of graphite 4. 石墨勘查、开采
RESTRICTED 5. Extraction and mineral separation of phosphate, lithium, and sulfur iron ores, and refining of brine resources from salt lakes 5.磷矿、锂矿和硫铁矿的开采、选矿,盐湖卤水资源的提炼	RESTRICTED 5. Extraction and mineral separation of lithium 5. 锂矿开采、选矿 Revised from 2011 Catalogue: Removed "phosphate and "sulfur iron ores" and "refining of brine resources from salt lakes"	Deleted	Deleted
RESTRICTED 6. Mining of boron-magnesium-iron ore 6. 硼镁石及硼镁铁矿石开采	Deleted		
RESTRICTED 7. Mining of lapis lazuli 7. 天青石开采	Deleted		

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RESTRICTED 8. Mining of manganese (polymetallic) nodules and sea sand (Chinese majority control) 8. 大洋锰结核、海砂的开采(中方 控股)	Deleted		
三、制造业 III. Manufacturing			
(一)农副食品加工业 (1) Food processing			
RESTRICTED  1. Processing of edible oils from soybean, rapeseed, peanut, cottonseed, tea seed, sunflower seed, and palm oil (Chinese majority control); processing of rice, flour, and deep processing of corn  1.豆油、菜籽油、花生油、棉籽油、茶籽油、菜籽油、棕榈油等食用油脂加工(中方控股),大米、面粉加工,玉米深加工	RESTRICTED 6. Processing of edible oils from soybean, rapeseed, peanut, cottonseed, tea seed, sunflower seed, and palm oil (Chinese majority control); processing of rice, flour and raw sugar, and deep processing of corn 6.豆油、菜籽油、花生油、棉籽油、茶籽油、葵花籽油、棕榈油等食用油脂加工(中方控股),大米、面粉、原糖加工,玉米深加工Revised from 2011 Catalogue: Added processing of "raw sugar"	Deleted	Deleted
RESTRICTED  2. Manufacture of biofuels (ethanol and biodiesel) (Chinese majority control)  2.生物液体燃料(燃料乙醇、生物柴油)生产(中方控股)	RESTRICTED 7. Manufacture of biofuels (ethanol and biodiesel) (Chinese majority control) 7.生物液体燃料(燃料乙醇、生物柴油)生产(中方控股)	Deleted	Deleted

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(二)饮料制造业			
(2) Beverage manufacturing			
RESTRICTED  1. Manufacture of yellow rice wine and famous and high-quality distilled spirits (Chinese majority control)  1.黄酒、名优白酒生产(中方控股)	Deleted		
(三)烟草制品业 (3) Tobacco products manufacturing			
RESTRICTED  1. Processing and production of tobacco threshing and re-drying  1.打叶复烤烟叶加工生产	Deleted		
(四)印刷业和记录媒介的复制 (4) Printing and copying			
RESTRICTED  1. Printing of published materials (Chinese majority control)  1. 出版物印刷(中方控股)	RESTRICTED 8. Printing of published materials (Chinese majority control) 8. 出版物印刷(中方控股)	RESTRICTED 5. Publications Printing (Chinese Side Holding) 5. 出版物印刷(中方控股)	RESTRICTED 5. Publications Printing (Chinese Side Holding) 5. 出版物印刷(中方控股)
(五)石油加工、炼焦及核燃料加工业 (5) Petroleum processing, coking, and nuclear fuel processing industries			
RESTRICTED  1. Atmospheric and vacuum distillation oil refining with annual production under 10 million tons per year, catalytic cracking with annual production under 1.5 million tons per	Deleted		

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year, continuous catalytic reforming (including aromatics extraction) with annual production under 1 million tons per year, hydrocracking production with annual production under 1.5 million tons per year.  1.1000 万吨/年以下常减压炼油、 150 万吨/年以下催化裂化、100 万吨/年以下连续重整(含芳烃抽提)、150 万吨/年以下加氢裂化生产		
(六)化学原料及化学制品制造业 (6) Chemical raw materials and chemicals manufacturing		
RESTRICTED  1. Manufacture of soda ash, caustic soda, sulfuric acid made below scale or using outdated technology, nitric acid, and potash  1. 纯碱、烧碱以及规模以下或采用落后工艺的硫酸、硝酸、钾碱生产	Deleted	
RESTRICTED  2. Manufacture of light-sensitive materials  2. 感光材料生产	Deleted	
RESTRICTED 3. Manufacture of biphenylamine 3.联苯胺生产	Deleted	
RESTRICTED 4. Manufacture of medical goods that	Deleted	

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can be used to manufacture drugs (ephedrine, 3, 4-methylenedioxythenyl-2-propanone, benzene acetic acid, 1-phenyl-2-acetone, heliotropin, yellow camphor, other yellow camphors, acetic acid anhydride) 4.易制毒化学品生产(麻黄素、3,4-亚基二氧苯基-2-丙酮、苯乙酸、1-苯基-2-丙酮、胡椒醛、黄樟脑、异黄樟脑、醋酸酐)		
RESTRICTED 5. Manufacture of hydrofluoric acid and other low-end hydrochlorofluorocarbon (HCFC) and chlorofluorocarbon (CFC) compounds 5.氟化氢等低端氟氯烃或氟氯化合物生产	Deleted	
RESTRICTED 6. Manufacture of butadiene rubber (does not include high cis-butadiene rubber), emulsion polymerized styrene-butadiene rubber, and thermoplastic styrene-butadiene rubber 6. 丁二烯橡胶(高顺式丁二烯橡胶 除外)、乳液聚合丁苯橡胶、热塑性丁苯橡胶生产	Deleted	
RESTRICTED 7. Manufacture of polyvinyl chloride (PVC) produced from acetylene, and	Deleted	

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ethylene and post processing products made below scale		
7.乙炔法聚氯乙烯以及规模以下乙烯和后加工产品生产		
RESTRICTED 8. Manufacture of paints and dyes with outdated technology, containing harmful materials, and made below scale 8.采用落后工艺、含有有害物质、规模以下颜料和涂料生产	Deleted	
RESTRICTED  9. Processing of boron-magnesium-iron ore  9.硼镁铁矿石加工	Deleted	
RESTRICTED 10. Manufacture of inorganic salts that uses too many natural resources, pollutes the environment, and uses outdated technology 10.资源占用大、环境污染严重、采 用落后工艺的无机盐生产	Deleted	
(七)医药制造业 (7) Medical and pharmaceutical products manufacturing		
RESTRICTED  1. Manufacture of chloramphenicol, penicillin G, lincomycin, gentamicin, dihydrostreptomycin, amikacin, tetracycline hydrochloride, oxytetracycline, medemycin,	Deleted	

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kitasamycin, norfloxacinum, ciprofloxacin, and ofloxacin 1.氯霉素、青霉素 G、洁霉素、庆 大霉素、双氢链霉素、丁胺卡那霉 素、盐酸四环素、土霉素、麦迪霉 素、柱晶白霉素、环丙氟哌酸、氟 哌酸、氟嗪酸生产		
RESTRICTED  2. Manufacture of analgin, acetaminophen, vitamin B1, B2, C, E, multi-vitamin tablets, and oral calcium agents  2.安乃近、扑热息痛、维生素 B1、维生素 B2、维生素 C、维生素 E、多种维生素制剂和口服钙剂生产	Deleted	
RESTRICTED 3. Manufacture of vaccines included in the national plan 3.纳入国家免疫规划的疫苗品种生产	Deleted	
RESTRICTED  4. Manufacture of anesthetics and Type I psychoactive drugs (Chinese majority control)  4.麻醉药品及一类精神药品原料药生产(中方控股)	Deleted	
RESTRICTED 5. Manufacture of blood-related	Deleted	

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5.血液制品的生产			
(八)化学纤维制造业 (8) Chemical fiber manufacturing			
1. Manufacture of chemical fiber through a conventional chipper 1.常规切片纺的化纤抽丝生产	Deleted		
RESTRICTED 2. Manufacture of viscose fiber 2.粘胶纤维生产	Deleted		
(九)有色金属冶炼及压延加工业 (9) Nonferrous metal smelting and processing manufacturing			
RESTRICTED  1. Smelting of tungsten, molybdenum, tin (excluding tin compounds), antimony (including antimony trioxide and antimony sulfide), and other rare metals  1.钨、钼、锡(锡化合物除外)、 锑(含氧化锑和硫化锑)等稀有金 属冶炼	RESTRICTED  9. Smelting of tungsten, molybdenum, tin (excluding tin compounds), antimony (including antimony trioxide and antimony sulfide), and other rare metals  9.钨、钼、锡(锡化合物除外)、 锑(含氧化锑和硫化锑)等稀有金 属冶炼	See Restricted at 6	See Restricted at 6
2. Smelting of electrolytic aluminum, copper, lead, zinc, and other nonferrous metals 2.电解铝、铜、铅、锌等有色金属冶炼	Deleted		
RESTRICTED  3. Smelting and separation of rare	RESTRICTED  10. Smelting and separation of rare	RESTRICTED 6. Rare earth smelting, separation	RESTRICTED 6. Rare earth smelting, separation

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

earths (limited to CJVs and EJVs) 3. 稀土冶炼、分离(限于合资、合作)	earths (limited to CJVs and EJVs) 10. 稀土冶炼、分离(限于合资、合作)	(limited toCJVs and EJVs), and tungsten smelting 6. 稀土冶炼、分离(限于合资、合作),钨冶炼 Revised from 2015 Catalogue: Remove "Smelting molybdenum, tin (excluding tin compounds), antimony (including antimony trioxide and antimony sulfide), and other rare metals"	(limited toCJVs and EJVs), and tungsten smelting 6. 稀土冶炼、分离(限于合资、合作),钨冶炼 Revised from 2015 Catalogue: Remove "Smelting molybdenum, tin (excluding tin compounds), antimony (including antimony trioxide and antimony sulfide), and other rare metals"
	RESTRICTED 11. Manufacture of whole vehicles, special purpose automobiles, and motorcycles: Chinese parties shall hold no less than 50% of shares, and any one foreign party is permitted establish in China no more than two JVs manufacturing the same type of vehicles (passenger vehicles, commercial vehicles, or motorcycles); if a foreign company's Chinese partner merges with another domestic auto manufacturer, the foreign company is not bound by the "two JV" limit 11. 汽车整车、专用汽车和摩托车制造:中方股比不低于 50%,同一家外商可在国内建立两家(含两家)以下生产同类(乘用车类、商用车类、摩托车类)整车产品的合资企业,如与中方合资伙伴联合兼	RESTRICTED 7. Manufacture of whole vehicles, special purpose automobiles, and motorcycles: Chinese parties shall hold no less than 50% of shares, and any one foreign party is permitted establish in China no more than two JVs manufacturing the same type of vehicles (passenger vehicles, commercial vehicles, or motorcycles); if a foreign company's Chinese partner merges with another domestic auto manufacturer, the foreign company is not bound by the "two JV" limit 7. 汽车整车、专用汽车和摩托车制造:中方股比不低于50%,同一家外商可在国内建立两家(含两家)以下生产同类(乘用车类、商用车类、摩托车类)整车产品的合资企业,如与中方合资伙伴联合兼并国	RESTRICTED 7.manufacturing of whole vehicles and special vehicles: Chinese party shall hold no less than 50 percent of shares. Foreign investors may establish two or less than two joint ventures that produce the same type of whole vehicles (such as passenger vehicles, and business purpose vehicles). Foreign investors are not restricted by the company numbers of two, if foreign investors merges or acquires Chinese vehicle producers with Chinese joint venture partners, or if foreign investors establish a joint venture to produce pure electric vehicle products. 7. 汽车整车、专用汽车制造:中方股比不低于 50%,同一家外商可在国内建立两家及两家以下生产同类(乘用车类、商用车类)整车产品

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	并国内其他汽车生产企业可不受两家的限制 Added	内其他汽车生产企业可不受两 家的 限制	的合资企业,如与中方合资伙伴联合兼并国内其他汽车生产企业以及建立生产纯电动汽车整车产品的合资企业可不受两家的限制Revised from 2015 Catalogue and 2016 Draft Catalogue :Removed restriction to two JVs for motorcycles; Added that the 2 JV restriction does not apply if the JV "produces electric vehicles"
(十)通用设备制造业 (10) General equipment manufacturing			
RESTRICTED  1. Manufacture of all types of common bearings (P0) and parts (steel ball and cage ring) and semifinished models  1.各类普通级(P0)轴承及零件 (钢球、保持架)、毛坯制造	Deleted		
RESTRICTED  2. Manufacture of wheeled cranes and crawler cranes less than 400 tons (limited to CJVs and EJVs)  2.400 吨以下轮式、履带式起重机械制造(限于合资、合作)	Deleted		
((十一)专用设备制造业 (11) Special-use equipment manufacturing			

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Deleted  I. Manufacture of common long- thread terylene and short-fiber devices  I.— 般深纶长丝、短纤维设备制造  RESTRICTED  2. Manufacture of buildozers with 320 horsepower or less, excavators with hydraulic pressure of 30 tons or less, wheeled loading machines 6 tons or less, graders with 220 horsepower or less, road rollers, forklifts, power-transmission off- highway automatic dumpers of 135 tons or less, hydraulic mechanical- transmission non-highway automatic dumpers of 60 tons or less, asphalt concrete mixing and paving equipment and high-altitude operating machines, horticulture machines and instruments, and commercial cement concrete mixing machines (pumps, cement mixers, mixing stations, and pump cars) 2.320 马力及以下推土机、30 吨级 及以下液压挖掘机、6 吨级及以下 转式装载机、20 马力及以下平地 机、压路机、叉车、135 吨级及以 下电力传动非公路自即翻斗车、60 中级及以下液力机械传动非公路自 即翻斗车、沥青混凝土搅拌与推销 设备和高空作业机械、圆林机械和	0.5070.0750		
thread terylene and short-fiber devices  L—般涤纶长丝、短纤维设备制造  RESTRICTED  2. Manufacture of bulldozers with 320 horsepower or less, excavators with hydraulic pressure of 30 tons or less, wheeled loading machines 6 tons or less, graders with 220 horsepower or less, road rollers, forklifts, power-transmission off-highway automatic dumpers of 135 tons or less, hydraulic mechanical-transmission non-highway automatic dumpers of 0 tons or less, asphalt concrete mixing and paving equipment and high-altitude operating machines, horticulture machines and instruments, and commercial cement concrete mixing machines, horticulture machines and instruments, and commercial cement concrete mixing machines, horticulture machines and instruments, and commercial cement concrete mixing machines, horticulture was machines, lopumps, cement mixers, mixing stations, and pump cars)  2.320 马力及以下推土机、30 吨级 大级 计 下线压控压机、6 吨级 及以 下线压控压机、6 吨级 及以 下线压控压机、220 马力及以下平地机、压路机、2年 135 吨级 及以 下线压线 机、220 马力及以下平地机、压路机、2年 135 吨级 及以 下电力传动非公路自卸翻斗车、60 吨级 及以 下该大级 在 1 年间, 1 年间	RESTRICTED	Deleted	
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mixing stations, and pump cars) 2.320 马力及以下推土机、30 吨级 及以下液压挖掘机、6 吨级及以下 轮式装载机、220 马力及以下平地 机、压路机、叉车、135 吨级及以 下电力传动非公路自卸翻斗车、60 吨级及以下液力机械传动非公路自 卸翻斗车、沥青混凝土搅拌与摊铺	_		
2.320 马力及以下推土机、30 吨级及以下 及以下液压挖掘机、6 吨级及以下 轮式装载机、220 马力及以下平地 机、压路机、叉车、135 吨级及以 下电力传动非公路自卸翻斗车、60 吨级及以下液力机械传动非公路自 卸翻斗车、沥青混凝土搅拌与摊铺			
及以下液压挖掘机、6 吨级及以下轮式装载机、220 马力及以下平地机、压路机、叉车、135 吨级及以下电力传动非公路自卸翻斗车、60吨级及以下液力机械传动非公路自卸翻斗车、沥青混凝土搅拌与摊铺			
轮式装载机、220 马力及以下平地机、压路机、叉车、135 吨级及以下电力传动非公路自卸翻斗车、60吨级及以下液力机械传动非公路自卸翻斗车、沥青混凝土搅拌与摊铺	2.320 马刀及以下推土机、30 吨级		
机、压路机、叉车、135 吨级及以 下电力传动非公路自卸翻斗车、60 吨级及以下液力机械传动非公路自 卸翻斗车、沥青混凝土搅拌与摊铺	及以下液压挖掘机、6吨级及以下		
下电力传动非公路自卸翻斗车、60 吨级及以下液力机械传动非公路自 卸翻斗车、沥青混凝土搅拌与摊铺	轮式装载机、220 马力及以下平地		
吨级及以下液力机械传动非公路自 卸翻斗车、沥青混凝土搅拌与摊铺	机、压路机、叉车、135 吨级及以		
<mark>卸翻斗车、沥青混凝土搅拌与摊铺</mark>	下电力传动非公路自卸翻斗车、60		
	吨级及以下液力机械传动非公路自		
设备和高空作业机械、园林机械和	卸翻斗车、沥青混凝土搅拌与摊铺		
	设备和高空作业机械、园林机械和		

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机具、商品混凝土机械(托泵、搅拌车、搅拌站、泵车)制造			
(十二)交通运输设备制造业 (12) Transportation and shipping infrastructure manufacturing			
RESTRICTED  1. Repair, design, and manufacture of ships (including parts) (Chinese majority control)  1.船舶(含分段)的修理、设计与制造(中方控股)	RESTRICTED 12. Repair, design, and manufacture of ships (including parts) (Chinese majority control) 12. 船舶(含分段)的修理、设计 与制造(中方控股)	RESTRICTED 8. Design, Manufacture and Repair of Ships (including Subparts) (Chinese Side Holding) 8. 船舶(含分段)的设计、制造与 修理(中方控股)	RESTRICTED 8. Design, Manufacture and Repair of Ships (including Subparts) (Chinese Side Holding) 8. 船舶(含分段)的设计、制造与 修理(中方控股)
See ENCOURAGED at (十九)交通 运输设备制造业(19) Transportation equipment manufacturing industry 7. Civil aircraft design, manufacture and maintenance: trunk, regional aircraft (China holding), general aircraft (limited to joint ventures, cooperation) 7. 民用飞机设计、制造与维修:干 线、支线飞机(中方控股),通用 飞机(限于合资、合作)	See ENCOURAGED 210. Civil aircraft design, manufacture and maintenance: trunk, regional aircraft (Chinese holding), general aircraft (Limited to joint venture, cooperation) 210. 民用飞机设计、制造与维修: 干线、支线飞机(中方控股),通 用飞机(限于合资、合作)	RESTRICTED  9. Trunk, regional aircraft design,manufacturing and maintenance, 3-ton and above helicopter design and manufacturing, ground, manufacture of aircraft for ground or water surface effects; design and manufacture of unmanned aerial vehicle and aerostatics (Chinese majority control)  9. 干线、支线飞机设计、制造与维修,3 吨级及以上直升机设计与制造,地面、水面效应航行器制造及无人机、浮空器设计与制造(中方 控股)  Also listed in ENCOURAGED at 210. Civil aircraft design, manufacture and maintenance: trunk, regional aircraft, general	RESTRICTED  9. Trunk, regional aircraft design,manufacturing and maintenance, 3-ton and above helicopter design and manufacturing, ground, surface effect of aircraft manufacturing and unmanned aerial vehicles, manufacture of aircraft for ground or water surface effects; design and manufacture of unmanned aerial vehicle and aerostatics (Chinese majority control)  9. 干线、支线飞机设计、制造与维 修,3 吨级及以上直升机设计与制 造,地面、水面效应航行器制造及 无人机、浮空器设计与制造(中方 控股) Also listed in ENCOURAGED at 210. Civil aircraft design, manufacture and maintenance:

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		aircraft 210. 民用飞机设计、制造与维修: 干线、支线飞机,通用飞机 ENCOURAGED 214. Manufacture of aircraft for ground or water surface effects; design and manufacture of unmanned aerial vehicle and aerostatics 214. 地面、水面效应航行器制造及无人机、浮空器设计与制造 ENCOURAGED 212. Design and manufacture of civilian helicopter 212. 民用直升机设计与制造	trunk, regional aircraft, general aircraft 210. 民用飞机设计、制造与维修: 干线、支线飞机,通用飞机 ENCOURAGED 213. Design and manufacture of civil helicopter 213. 民用直升机设计与制造 ENCOURAGED 215. Ground, surface effect aircraft manufacturing and unmanned aerial vehicles, aircraft design and manufacturing 215. 地面、水面效应航行器制造及 无人机、浮空器设计与制造
See ENCOURAGED at (十九)交通 运输设备制造业(19) Transportation equipment manufacturing industry 7. Civil aircraft design, manufacture and maintenance: trunk, regional aircraft (China holding), general aircraft (limited to joint ventures, cooperation) 7. 民用飞机设计、制造与维修:干 线、支线飞机(中方控股),通用 飞机(限于合资、合作)	See ENCOURAGED 210. Civil aircraft design, manufacture and maintenance: trunk, regional aircraft (Chinese holding), general aircraft (Limited to joint venture, cooperation) 210. 民用飞机设计、制造与维修: 干线、支线飞机(中方控股),通 用飞机(限于合资、合作)	RESTRICTED 10. General aircraft design, manufacture and maintenance (limited to joint ventures, cooperation) 10. 通用飞机设计、制造与维修 (限于合资、合作)  Also listed in ENCOURAGED 210. Civil aircraft design, manufacture and maintenance: trunk, regional aircraft, general aircraft 210. 民用飞机设计、制造与维修: 干线、支线飞机,通用飞机	RESTRICTED  10. General aircraft design, manufacture and maintenance (limited to joint ventures, cooperation)  10. 通用飞机设计、制造与维修 (限于合资、合作)  Also listed in ENCOURAGED 211. Civil aircraft design, manufacture and maintenance: trunk, regional aircraft, general aircraft  211. 民用飞机设计、制造与维修: 干线、支线飞机,通用飞机

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(十三)通信设备、计算机及其他 电子设备制造业 (13) Electronics and telecommunications appliance manufacturing			
RESTRICTED  1. Production of satellite television receiving and broadcasting equipment and key parts  1.卫星电视广播地面接收设施及关键件生产	RESTRICTED 13. Production of satellite television receiving and broadcasting equipment and key parts 13. 卫星电视广播地面接收设施及 关键件生产	RESTRICTED 11. Production of satellite television receiving and broadcasting equipment and key parts 11. 卫星电视广播地面接收设施及 关键件生产	RESTRICTED 11. Production of satellite television receiving and broadcasting equipment and key parts 11. 卫星电视广播地面接收设施及 关键件生产
四、电力、热力、燃气及水生产和的 Production and Supplies	共 <u>应业</u> IV. Electricity, Gas, and Water		
See ENCOURAGED 4. Construction and operation of nuclear power stations (Chinese majority control) 4.核电站的建设、经营(中方控股)	See ENCOURAGED 293. Construction and operation of nuclear power stations (Chinese majority control) 293.核电站的建设、经营(中方控 股)	RESTRICTED 12. Construction and operation of nuclear power plants (Chinese shareholding) 12. 核电站的建设、经营(中方控股)	RESTRICTED  12. Construction and operation of nuclear power plants (Chinese shareholding)  12. 核电站的建设、经营(中方控股)
		Draft 2016 CGFI also lists this as Encouraged (at 289) with the restriction to Chinese majority control removed ENCOURAGED 289.Construction and operation of nuclear power stations 289.核电站的建设、经营	2017 Catalogue also lists this as Encouraged (at 292) with the restriction to Chinese majority control removed ENCOURAGED 292. Construction and operation of nuclear power stations 292.核电站的建设、经营
See RESTRICTED at 四、电力、煤气及水的生产和供应	See ENCOURAGED 295. Construction and operation of	RESTRICTED  13. Construction and operation of	RESTRICTED  13. Construction and operation of

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业 IV. Production and Supply of Power, Gas and Water 2. Construction and operation of electricity grids (Chinese majority control) 2. 电网的建设、经营(中方控股)	electricity grids (Chinese majority control) 295. 电网的建设、经营(中方控 股)	electricity grids (Chinese party holding) 13. 电网的建设、经营(中方控股) Draft 2016 Catalogue also lists this as Encouraged (at 291) with the restriction to Chinese majority control removed ENCOURAGED 291. Construction and operation of electricity grids 291. 电网的建设、经营	electricity grids (Chinese party holding) 13. 电网的建设、经营(中方控股) 2017 Catalogue also lists this as Encouraged (at 294) with the restriction to Chinese majority control removed ENCOURAGED 294. Construction and operation of electricity grids 294. 电网的建设、经营
RESTRICTED  1. Construction and operation of coal-fired, steam-condensing power plants with single-machine capacity at or below 300,000 kW, or coalfired, steam-condensing power heating units with single-machine capacity at or below 100,000 kW (within small-scale power networks)  1.小电网范围内,单机容量 30 万千瓦及以下燃煤凝汽火电站、单机容量 10 万千瓦及以下燃煤凝汽火电站、单机容量 10 万千瓦及以下燃煤凝汽抽汽两用机组热电联产电站的建设、经营	RESTRICTED 14. Construction and operation of coal-fired, steam-condensing power plants with single-machine capacity at or below 300,000 kW, or coalfired, steam-condensing power heating units with single-machine capacity at or below 100,000 kW (within small-scale power networks) 14.小电网范围内,单机容量 30 万干瓦及以下燃煤凝汽火电站、单机容量 10 万干瓦及以下燃煤凝汽油汽两用机组热电联产电站的建设、经营	Deleted but still prohibited/restricted by other domestic regulations	Deleted but still prohibited/restricted by other domestic regulations
RESTRICTED  3. Construction and operation of gas, heat supply, and water drainage network in cities with a population of more than 0.5 million (Chinese majority control)	RESTRICTED  15. Construction and operation of gas, heat supply, and water drainage network in cities with a population of more than 0.5 million (Chinese majority control)	RESTRICTED  14. Construction and operation of gas, heat supply, and water drainage networks in cities with a population of more than 500,000 (Chinese majority control)	RESTRICTED  14. Construction and operation of gas, heat supply, and water drainage network in cities with a population of more than 500,000 (Chinese majority control)

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3.城市人口 50 万以上的城市燃气、热力和供排水管网的建设、经营(中方控股)  五、交通运输、仓储和邮政业 V. Tra	15.城市人口 50 万以上的城市燃气、热力和供排水管网的建设、经营(中方控股)	14.城市人口 50 万以上的城市燃气、热力和供排水管网的建设、经营(中方控股)	14.城市人口 50 万以上的城市燃气、热力和供排水管网的建设、经营(中方控股)
RESTRICTED  1. Freight train transportation companies  1. 铁路货物运输公司	Deleted		
See ENCOURAGED  1. Construction and operation of main line railroad networks (Chinese majority control)  1. 铁路干线路网的建设、经营(中方控股)	See ENCOURAGED 301. Construction and operation of main line railroad networks (Chinese majority control) 301.铁路干线路网的建设、经营(中方控股)	RESTRICTED 15. Construction and operation of main line railroad networks (Chinese party holding) 15. 铁路干线路网的建设、经营(中方控股) Also listed in ENCOURAGED 297. Construction and operation of main line railroad networks 297. 铁路干线路网的建设、经营	RESTRICTED 15. Construction and operation of main line railroad networks (Chinese party holding) 15. 铁路干线路网的建设、经营(中方控股) Also listed in ENCOURAGED 301. Construction and operation of main line railroad networks 301. 铁路干线路网的建设、经营
RESTRICTED  2. Passenger train transportation companies (Chinese majority control)  2. 铁路旅客运输公司(中方控股)	RESTRICTED 16. Passenger train transportation companies (Chinese majority control) 16. 铁路旅客运输公司(中方控股)	RESTRICTED 16. Passenger train transportation companies (Chinese majority control) 16. 铁路旅客运输公司(中方控股)	RESTRICTED 16. Passenger train transportation companies (Chinese majority control) 16. 铁路旅客运输公司(中方控股)
RESTRICTED 3. Road passenger transportation companies 3.公路旅客运输公司	RESTRICTED 17. Road passenger transportation companies 17. 公路旅客运输公司	Deleted	Deleted

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RESTRICTED  4. Cross-border automobile transportation companies  4. 出入境汽车运输公司	Deleted		
RESTRICTED 5. Water transportation companies (Chinese majority control) 5. 水上运输公司(中方控股)	RESTRICTED 18. Water transportation companies (Chinese majority control) 18. 水上运输公司(中方控股)	RESTRICTED 17. Domestic water transport companies (Chinese party holdings), international maritime transport companies (limited to joint ventures, cooperation) 17. 国内水上运输公司(中方控 股),国际海上运输公司(限于合 资、合作) Revised from 2015 Catalogue to impose different restrictions on domestic water transport companies vs. International maritime transport companies.  Also listed as ENCOURAGED 306. International maritime transport companies 306. 国际海上运输公司	RESTRICTED 17. Domestic water transport companies (Chinese party holdings), international maritime transport companies (limited to joint ventures, cooperation) 17. 国内水上运输公司(中方控 股),国际海上运输公司(限于合 资、合作) Revised from 2015 Catalogue to impose different restrictions on domestic water transport companies vs. International maritime transport companies.  Also listed as ENCOURAGED 310. International maritime transport companies 310. 国际海上运输公司
See ENCOURAGED 7. Construction and operation of civil airports (Chinese side must hold the largest relative controlling interest) 7. 民用机场的建设、经营(中方相 对控股)	See ENCOURAGED 307. Construction and operation of civil airports (Chinese side must hold the largest relative controlling interest) 307. 民用机场的建设、经营(中方相对控股)	RESTRICTED  18. Construction and operation of civil airports (relative holding by the Chinese party)  18. 民用机场的建设、经营(中方相对控股)  Also listed as ENCOURAGED  303. Construction and operation of	RESTRICTED  18. Construction and operation of civil airports (relative holding by the Chinese party)  18. 民用机场的建设、经营(中方相对控股)  Also listed as ENCOURAGED 303. Construction and operation of

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		civil airports	civil airports
		303. 民用运输机场的建设、经营	303. 民用运输机场的建设、经营
5 511001101 050	S 51100110 1 050		
See ENCOURAGED 8. Air carrier shipping companies (Chinese majority control) 8. 航空运输公司(中方控股)	See ENCOURAGED 308. Air carrier shipping companies (Chinese majority control, and any one foreign party or its affiliates may account for no more than 25% of investment) 308.航空运输公司(中方控股,且一家外商及其关联企业投资比例不得超过 25%)	RESTRICTED  19. Public air carrier shipping company (the Chinese party must be the controlling shareholder; the investment proportion of a foreign investor and its affiliated enterprises shall not exceed 25% and the legal representative shall have Chinese nationality)  19. 公共航空运输公司(中方控股,且一家外商及其关联企业投资比例不得超过 25%,法定代表人须具有中国国籍)  Revised from 2015 Catalogue: Moved to the restricted section and language changed to specify "public" air carrier shipping company. Added" legal representative shall have Chinese	RESTRICTED 19. Public air transport company (the Chinese party must be the controlling shareholder; the investment proportion of a foreign investor and its affiliated enterprises shall not exceed 25% and the legal representative shall have Chinese nationality) 19. 公共航空运输公司(中方控股,且一家外商及其关联企业投资比例不得超过 25%,法定代表人须具有中国国籍) Revised from 2015 Catalogue: Moved to the restricted section and language changed to specify "public" air carrier shipping company. Added" legal representative shall have Chinese
RESTRICTED 6. General aviation airline companies	RESTRICTED  19. General aviation companies for	nationality "  RESTRICTED  20. General aviation companies (the	nationality "  RESTRICTED  20. General aviation companies (the
for photography, prospecting, industrial and other purposes (Chinese majority control)  6.摄影、探矿、工业等通用航空公	business flights, aerial tourism, photography, prospecting, industrial and other purposes (Chinese majority control)	legal representative must be of Chinese nationality; agricultural, forestry, and fisheries-related general aviation companies are limited to	legal representative must be of Chinese nationality; agricultural, forestry, and fisheries-related general aviation companies are limited to
司(中方控股)	19. 公务飞行、空中游览、摄影、 探矿、工业等通用航空公司(中方 控股)	joint ventures and CJVs; for other general aviation companies the Chinese side must hold the controlling share)	joint ventures and CJVs; for other general aviation companies the Chinese side must hold the controlling share)
	Revised from 2011 Catalogue:	20. 通用航空公司(法定代表人须	20. 通用航空公司 ( 法定代表人须

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	六、信息传输、软件和信息技术服务业 VI. Information Transmission, Software, and IT Services		具有中国国籍,其中农、林、渔业通用航空公司限于合资、合作,其他通用航空公司限于合资、合作,其他通用航空公司限于中方控股) Revised from 2015 Catalogue to pertain to all general aviation companies; add stipulation that the legal representative must be of Chinese nationality; and specifies different Chinese partnering requirements depending on the industry focus of the general aviation company.  Also listed as ENCOURAGED 309. General aviation, forestry, fishing and fishery 309. 农、林、渔业通用航空公司
RESTRICTED 7. Telecom companies: value-added telecom services (foreign equity stake must not exceed 50%); basic telecommunication services (foreign equity stake must not exceed 49%) 7.电信公司:增值电信业务(外资比例不超过 50%),基础电信业务 (外资比例不超过 49%)	RESTRICTED	RESTRICTED 21. Telecommunications companies: value-added telecommunications services (foreign investment ratio of not more than 50%, except e-commerce), basic telecommunications business (Chinese holding majority share) 21. 电信公司:增值电信业务(外资比例不超过 50%,电子商务除外),基础电信业务(中方控股)	21. Telecommunications companies: Limited to businesses opened under WTO commitments; value-added telecommunications services (foreign investment ratio of not more than 50%, except e-commerce), basic telecommunications business (Chinese holding majority share) 21. 电信公司:限于 WTO 承诺开放 的业务,增值电信业务(外资比例 不超过 50%,电子商务除外),基

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	Revised from 2011 Catalogue: Added language exempting "e-commerce" from ownership restrictions in value-added telecom services		础电信业务(中方控股) Revised from 2015 and 2016 Catalogue: Added language specifying that investment in telecommunications is limited in accordance with China's WTO commitments
六、批发和零售业 VI. Wholesale and Retail Trade	七、批发和零售业 VII. Wholesale		
RESTRICTED  1. Direct sales, mail-order, online selling  1.直销、邮购、网上销售	Deleted		
RESTRICTED  2. Procurement of grain; wholesale, retail, and distribution of grain, cotton, vegetable oil, sugar, tobacco, crude oil, pesticides, agricultural film, and fertilizer (for retail operations of more than 30 chain stores that sell different types and brands from multiple suppliers, the Chinese majority control)  2.粮食收购,粮食、棉花、植物油、食糖、烟草、原油、农药、农膜、化肥的批发、零售、配送(设立超过30家分店、销售来自多个供应商的不同种类和品牌商品的连锁店由中方控股)	RESTRICTED 21. Procurement of grain; wholesale of grain and cotton; establishment and operation of large wholesale markets for agricultural products 21.粮食收购,粮食、棉花批发,大型农产品批发市场建设、经营 Revised from 2011 Catalogue: Combined 1 and 2 from the 2011 Catalogue; Removed "wholesale, retail and distribution of vegetable oil, sugar, tobacco, crude oil, pesticides, agricultural film, and fertilizer," as well as "retail and distribution of grain and cotton," and limitations stating that "for retail operations of more than 30 chain stores that sell different types and brands from multiple suppliers, there must be Chinese majority control"	RESTRICTED 22. Procurement of rice, wheat and corn and the establishment and operation of large wholesale markets for agricultural products 22. 稻谷、小麦、玉米收购、批发,大型农产品批发市场建设、经营 Revised from 2015 Catalogue: Specifies that the restriction on procurement of grain applies specifically to rice, wheat and corn	RESTRICTED 22. Procurement of rice, wheat, and corn 22. 稻谷、小麦、玉米收购、批发 Revised from 2015 Catalogue: Specifies that the restriction on procurement of grain applies specifically to rice, wheat and corn; Revised from 2016 draft catalogue: removes "establishment and operation of large wholesale markets for agricultural products" from the restriction.

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RESTRICTED 3. Construction and operation of large-scale wholesale markets of agricultural products 3.大型农产品批发市场建设、经营	Combined with 21 above.		
RESTRICTED  4. Distribution of audio-visual products (except films) (limited to CJVs)  4.音像制品(除电影外)的分销 (限于合作)	Deleted		
RESTRICTED 5. Shipping agents (Chinese majority control); foreign freight forwarders (limited to CJVs and EJVs) 5.船舶代理(中方控股)、外轮理货(限于合资、合作)	RESTRICTED  22. Shipping agents (Chinese majority control); foreign freight forwarders (limited to CJVs and EJVs)  22. 船舶代理(中方控股)、外轮 理货(限于合资、合作)	RESTRICTED 23. Shipping agents (Chinese majority control) 23. 船舶代理(中方控股) Revised from 2015 Catalogue: Removed restriction pertaining to foreign freight forwarders	RESTRICTED 23. Shipping agents (Chinese majority control) 23. 船舶代理(中方控股) Revised from 2015 Catalogue: Removed restriction pertaining to foreign freight forwarders
RESTRICTED 6. Wholesale of refined petroleum as well as construction and management of gas stations (for retail operations of more than 30 chain stores established by the same foreign investor that sell different types and brands from multiple suppliers, must have Chinese majority control) 6.成品油批发及加油站(同一外国投资者设立超过 30 家分店、销售来自多个供应商的不同种类和品牌	-	than 30 chain stores established by the same foreign investor that sell different types and brands from multiple suppliers, must have Chinese majority control)	-

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成品油的连锁加油站,由中方控股)建设、经营	Removed "wholesale of refined petroleum"		
七、金融业 VII. Finance and Insurance	八、金融业 VIII. Finance and Insurance		
RESTRICTED  1. Banks, finance companies, trust companies, and currency brokerages  1.银行、财务公司、信托公司、货币经纪公司	RESTRICTED 24. Banks (When investing in individual Chinese commercial banks, no one foreign financial institution or the affiliates it controls or jointly controls as a founder or a strategic investor shall own no more than 20%; no combination of foreign financial institutions or the affiliates they control or jointly control as a founder or a strategic investor shall own no more than 25%. Foreign financial institutions investing in small and medium-sized rural financial institutions shall be banking institutions.) 24. 银行(单个境外金融机构及被 其控制或共同控制的关联方作为发起人或战略投资者向单个中资商业银行投资入股比例不得超过20%,多个境外金融机构及被其控制或共同控制的关联方作为发起人或战略投资者投资入股比例不得超过20%,多个境外金融机构及被其控制或共同控制的关联方作为发起人或战略投资者投资入股比例合计不得超过25%,投资农村中小金融机构的境外金融机构必须是银行类金融机构的境外金融机构必须是银行类金融机构的	no one foreign financial institution or the affiliates it controls or jointly controls as a founder or a strategic investor shall own more than 20%; no combination of foreign financial institutions or the affiliates they control or jointly control as a founder	RESTRICTED 25. Banks (When investing in individual Chinese commercial banks, no one foreign financial institution or the affiliates it controls or jointly controls as a founder or a strategic investor shall own more than 20%; no combination of foreign financial institutions or the affiliates they control or jointly control as a founder or a strategic investor shall own more than 25%. Foreign financial institutions investor shall own more than 25%. Foreign financial institutions investing in small and medium-sized rural financial institutions. Foreign investors who establish a branch of a foreign bank, a wholly foreign-owned bank, and a Sino-foreign JV bank, and the only or controlling shareholders of these banks, must be overseas commercial banks, and non-controlling shareholders can be overseas financial institutions) 25. 银行(单个境外金融机构及被 其控制或共同控制的关联方作为发 起人或战略投资者向单个中资商业 银行投资入股比例不得超过 20%,

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	Revised from 2011 Catalogue: Removed "finance companies, trust companies, and currency brokerages," and added new conditions for banks: "When investing in individual Chinese commercial banks, no one foreign financial institution or the affiliates it controls or jointly controls as a founder or a strategic investor shall own no more than 20%; no combination of foreign financial institutions or the affiliates they control or jointly control as a founder or a strategic investor shall own no more than 25%. Foreign financial institutions investing in small and medium-sized rural financial institutions shall be banking institutions."		多个境外金融机构及被其控制或共同控制的关联方作为发起人或战略投资者投资入股比例合计不得超过25%;投资农村中小金融机构的境外金融机构必须是银行类金融机构;设立外国银行分行、外商独资银行、中外合资银行的境外投资者、唯一或控股股东必须为境外商业银行,非控股股东可以为境外金融机构) Revised from 2015 and 2016 draft Catalogue: Added "Foreign investors who establish a branch of a foreign bank, a wholly foreign-owned bank, and a Sino-foreign JV bank, and the only or controlling shareholders of these banks, must be overseas commercial banks, and non-controlling shareholders can be overseas financial institutions." (This is also required by CBRC in its 2015 Measures for Implementing Administrative Licensing for Foreign Banks)
RESTRICTED  2. Insurance companies (foreign stake in life insurance companies must not exceed 50%)  2.保险公司(寿险公司外资比例不超过 50%)	RESTRICTED 25. Insurance companies (foreign stake in life insurance companies must not exceed 50%) 25. 保险公司(寿险公司外资比例 不超过 50%)	RESTRICTED 26. Insurance companies (foreign stake in life insurance companies must not exceed 50%) 26. 保险公司(寿险公司外资比例 不超过 50%)	RESTRICTED 26. Insurance companies (foreign stake in life insurance companies must not exceed 50%) 26. 保险公司(寿险公司外资比例 不超过 50%)

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### RESTRICTED

- 3. Securities companies (limited to underwriting A shares and underwriting and transacting B shares, H shares, and government and corporate securities; foreign equity stake must not exceed onethird) and stock investment fund companies (foreign equity stake must not exceed 49%)
- 3. 证券公司(限于从事 A 股承销、 B 股和 H 股以及政府和公司债券的 承销和交易,外资比例不超过 1/3)、证券投资基金管理公司 (外资比例不超过49%)

## **RESTRICTED**

26. Securities companies (at the initial establishment, the business scope of the company shall be limited to stocks (including common stocks denominated in RMB and foreign stocks) and bonds (including government bonds and corporate bonds) underwriting and sponsoring; foreign stock brokerage; bonds (including government bonds and corporate bonds) brokerage and selfoperation; and after operating continuously for more than two years and meeting the relevant conditions, the company may apply for expanding the business scope; the proportion of shares held by the foreign parties shall not exceed 49%) and stock investment fund companies (foreign equity stake must not exceed 49%) 26. 证券公司(设立时限于从事人 民币普通股、外资股和政府债券、 公司债券的承销与保荐,外资股的 经纪,政府债券、公司债券的经纪 和自营;设立满2年后符合条件的 公司可申请扩大业务范围;外资比 例不超过 49%)、证券投资基金管 理公司(外资比例不超过49%) Revised from 2011 Catalogue: Rewrote all of the specific

### **RESTRICTED**

27. Securities companies (at the initial establishment, the business scope of the company shall be limited to underwriting, recommendation and guarantee of RMB common stock, capital stocks, government bonds and corporate bonds as set up; as well as brokerage of foreign shares corporate bonds). After two years operating in the China market, qualified foreign companies can apply to expand their business scope, but the Chinese party must retain a controlling interest. For security investment fund management companies, the Chinese party must retain a controlling interest. 27. 证券公司(设立时限于从事人 民币普通股、外资股和政府债券、 公司债券的承销与保荐,外资股的 经纪,政府债券、公司债券的经纪 和自营;设立满2年后符合条件的 公司可申请扩大业务范围;中方控 股)、证券投资基金管理公司(中 方控股)

Revised from 2015 Catalogue: Rather than stating that the proportion of shares held by the foreign parties in securities companies and stock investment fund companies cannot

### **RESTRICTED**

27. Securities companies (at the initial establishment, the business scope of the company shall be limited to underwriting, recommendation and guarantee of RMB common stock, capital stocks, government bonds and corporate bonds as set up; as well as brokerage of foreign shares of proprietary government bonds and of proprietary government bonds and corporate bonds). After two years operating in the China market, qualified foreign companies can apply to expand their business scope, but the Chinese party must retain a controlling interest. For security investment fund management companies, the Chinese party must retain a controlling interest. 27. 证券公司(设立时限于从事人 民币普通股、外资股和政府债券、 公司债券的承销与保荐,外资股的 经纪,政府债券、公司债券的经纪 和自营;设立满2年后符合条件的 公司可申请扩大业务范围;中方控 股)、证券投资基金管理公司(中 方控股)

Revised from 2015 Catalogue: Rather than stating that the proportion of shares held by the foreign parties in securities companies and stock investment fund companies cannot

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	descriptions underneath the "securities companies" category	exceed 49%, this restriction now simply specifies that the Chinese side must hold the controlling share.	exceed 49%, this restriction now simply specifies that the Chinese side must hold the controlling share.
RESTRICTED 4. Insurance brokerages 4. 保险经纪公司	Deleted		
RESTRICTED 5. Futures trading companies (Chinese majority control) 5. 期货公司(中方控股)	RESTRICTED 27. Futures trading companies (Chinese majority control) 27. 期货公司(中方控股)	RESTRICTED 28. Futures trading companies (Chinese majority control) 28. 期货公司(中方控股)	RESTRICTED 28. Futures trading companies (Chinese majority control) 28. 期货公司(中方控股)
八、房地产业 VIII. Real Estate			
RESTRICTED  1. Development of land (limited to EJVs and CJVs)  1.土地成片开发(限于合资、合作)	Deleted		
RESTRICTED  2. Construction and operation of luxury hotels, high-end office buildings, and international conferences and exhibition centers  2.高档宾馆、高档写字楼和国际会展中心的建设、经营	Deleted		
RESTRICTED  3. Real estate secondary market exchanges, intermediaries, and brokerages  3. 房地产二级市场交易及房地产中介或经纪公司	Deleted		

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九、租赁和商务服务业 IX. Leasing a	nd Business Services		
RESTRICTED  2. Market research (limited to EJVs and CJVs)  2. 市场调查(限于合资、合作)	RESTRICTED 28. Market research (limited to EJVs and CJVs; radio and television listenership and viewership rating market research must have Chinese majority control) 28. 市场调查(限于合资、合作,其中广播电视收听、收视调查要求中方控股) Revised from 2011 Catalogue: Added "radio and television listenership and viewership rating market research must have Chinese majority control"	RESTRICTED 29. Market research (limited to EJVs and CJVs; radio and television listenership and viewership rating market research must have Chinese majority control) 29.市场调查(限于合资、合作,其中广播电视收听、收视调查要求中方控股)	RESTRICTED 29. Market research (limited to EJVs and CJVs; radio and television listenership and viewership rating market research must have Chinese majority control) 29.市场调查(限于合资、合作,其中广播电视收听、收视调查要求中方控股)
RESTRICTED 3. Credit rating and evaluation services companies 3. 资信调查与评级服务公司	RESTRICTED 29. Credit rating and evaluation services companies 29. 资信调查与评级服务公司	Deleted	Deleted
十、科学研究、技术服务和地质勘弧 Technology Services, and Geological S			
RESTRICTED  1. Surveying and mapping companies (Chinese majority control)  1. 测绘公司(中方控股)	RESTRICTED 30. Surveying and mapping companies (Chinese majority control) 30. 测绘公司(中方控股)	RESTRICTED 30. Surveying and mapping companies (Chinese majority control) 30. 测绘公司(中方控股)	RESTRICTED 30. Surveying and mapping companies (Chinese majority control) 30. 测绘公司(中方控股)
RESTRICTED  2. Import-export commodity inspection, appraisal, and authentication companies  2. 进出口商品检验、鉴定、认证公司	Deleted		

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RESTRICTED 3. Photography services (including aerial photography and other stunt photography services, but not aerial photography for surveying and drawing; restricted to EJVs) 3. 摄影服务(含空中摄影等特技摄影服务,但不包括测绘航空摄影,限于合资)	Deleted		
十一、教育 XI. Education			
RESTRICTED  1. Higher education institutions (limited to EJVs and CJVs)  1. 高等教育机构(限于合资、合作)	RESTRICTED 31. Higher education institutions (limited to CJVs, must be led by the Chinese side) 31. 高等教育机构(限于合作、中方主导) Revised from 2011 Catalogue: Removed EJV requirements; added "must be led by the Chinese side"	RESTRICTED 31. Pre-school, general high school and higher education institutions (limited to Chinese-foreign cooperation in running schools, Chinese leadership) * "Chinese leadership" means that the principal or the principal administrative person in charge shall have Chinese nationality, and Chinese shall not less than 1/2 of the board of directors or the joint management committee of the Chinese foreign cooperative education institution. 31. 学前、普通高中和高等教育机构(限于中外合作办学、中方主导*)*中方主导是指校长或者主要行政负责人应当具有中国国籍,中外合作办学机构的理事会、董事会或者联合管理委员会的中方组成人员	RESTRICTED 31. Pre-school, general high school and higher education institutions (limited to Chinese-foreign cooperation in running schools, Chinese leadership) * "Chinese leadership" means that the principal or the principal administrative person in charge shall have Chinese nationality, and Chinese shall not less than 1/2 of the board of directors or the joint management committee of the Chinese foreign cooperative education institution. 31. 学前、普通高中和高等教育机构(限于中外合作办学、中方主导*)*中方主导是指校长或者主要行政负责人应当具有中国国籍,中外合作办学机构的理事会、董事会或者联合管理委员会的中方组成人员

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		不得少于 1/2(下同)。 Revised from 2015 Catalogue: Combines 31, 32 and 33; specifies "limited to Chinese-foreign cooperation in running schools, Chinese leadership;" and defines what "Chinese leadership" means.	不得少于 1/2。 Revised from 2015 Catalogue: Combines 31, 32 and 33; specifies "limited to Chinese-foreign cooperation in running schools, Chinese leadership;" and defines what "Chinese leadership" means.
RESTRICTED  1. Basic secondary (high-school) educational institutions (limited to CJVs)  1. 普通高中教育机构(限于合作)	RESTRICTED 32. Basic secondary (high-school) educational institutions (limited to CJVs, must be led by the Chinese side) 32. 普通高中教育机构(限于合 作、中方主导) Revised from 2011 Catalogue: Added "must be led by Chinese side"	Incorporated into 31 above.	Incorporated into 31 above.
	RESTRICTED 33 Preschool education (limited CJVs, must be led by the Chinese side) 33. 学前教育机构(限于合作、中方主导) Added	Incorporated into 31 above.	Incorporated into 31 above.
	十二、卫生和社会工作 XII. Healthcare and Social Work Services		
	RESTRICTED 34. Medical institutions (limited to EJVs, CJVs) 34. 医疗机构(限于合资、合作) Added	RESTRICTED 32. Medical institutions (limited to EJVs, CJVs) 32. 医疗机构(限于合资、合作)	RESTRICTED 32. Medical institutions (limited to EJVs, CJVs) 32. 医疗机构(限于合资、合作)

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十二、文化、体育和娱乐业 XII. Cultural, Sports, and Entertainment Companies	十三、文化、体育和娱乐业 XIII. Cultural, Sports, and Entertainment Companies		
RESTRICTED  1. Radio and television program and film production (limited to CJVs)  1. 广播电视节目、电影的制作业务 (限于合作)	RESTRICTED 35. Radio and television program and film production (limited to CJVs) 35. 广播电视节目、电影的制作业务(限于合作)	RESTRICTED 33. Radio and television program and film production (limited to CJVs) 33. 广播电视节目、电影的制作业务(限于合作)	RESTRICTED 33. Radio and television program and film production (limited to CJVs) 33. 广播电视节目、电影的制作业 务(限于合作)
RESTRICTED  2. Construction and management of movie theaters (Chinese majority control)  2. 电影院的建设、经营(中方控股)	RESTRICTED 36. Construction and management of movie theaters (Chinese majority control) 36. 电影院的建设、经营(中方控股)	RESTRICTED 34. Construction and management of movie theaters (Chinese majority control) 34. 电影院的建设、经营(中方控股)	RESTRICTED 34. Construction and management of movie theaters (Chinese majority control) 34. 电影院的建设、经营(中方控股)
RESTRICTED 3. Construction and management of theme parks 3.大型主题公园的建设、经营	RESTRICTED 37. Construction and management of theme parks 37. 大型主题公园的建设、经营	Deleted	Deleted
RESTRICTED  4. Performance agency companies (Chinese majority control)  4. 演出经纪机构(中方控股)	RESTRICTED 38. Performance agency companies (Chinese majority control) 38. 演出经纪机构(中方控股)	RESTRICTED 35. Performance agency companies (Chinese majority control) 35. 演出经纪机构(中方控股)	RESTRICTED 35. Performance agency companies (Chinese majority control) 35. 演出经纪机构(中方控股)
RESTRICTED 5. Operation of entertainment venues (limited to EJVs and CJVs) 5. 娱乐场所经营(限于合资、合作)	Deleted		
十三、国家和我国缔结或者参加的 国际条约规定限制的其他产业	十四、国家法律法规和我国缔结或 者参加的国际条约规定限制的其他		

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

XIII. Other industries restricted by national laws and regulations or by international treaties for which China adheres to or has ratified

## 产业

XIV. Other industries restricted by national laws and regulations or by international treaties for which China adheres to or has ratified

# 禁止外商投资产业目录 PROHIBITED

## 一, 农、林、牧、渔业 I. Agriculture, Forestry, Animal Husbandry, Fishery, and Related Industries

#### **PROHIBITED**

- 1. Research and development, cultivation, and growth of China's rare and precious breeds, and production of related reproductive materials (including beneficial genes in the horticultural, animal husbandry, and aquatic products industries)
- 1.我国稀有和特有的珍贵优良品种的研发、养殖、种植以及相关繁殖材料的生产(包括种植业、畜牧业、水产业的优良基因)

## **PROHIBITED**

2. Research and development of genetically modified organisms, and production of genetically modified crop seeds, livestock, and aquatic seeds (seedlings)
2.转基因生物研发和转基因农作物种子、种畜禽、水产苗种生产

### **PROHIBITED**

- 1. Research and development, cultivation, and growth of China's rare and precious breeds, and production of related reproductive materials (including beneficial genes in the horticultural, animal husbandry, and aquatic products industries)
- 1.我国稀有和特有的珍贵优良品种的研发、养殖、种植以及相关繁殖材料的生产(包括种植业、畜牧业、水产业的优良基因)

#### **PROHIBITED**

2. Development of genetically modified agricultural products, livestock, poultry and aquatic seeds and seedlings; production of genetically modified seeds (seedlings) 2.农作物、种畜禽、水产苗种转基因品种选育及其转基因种子(苗)

## Revised from 2011 Catalogue:

#### PROHIBITED

- 1. Research and development, cultivation, and growth of China's rare and precious breeds, and production of related reproductive materials (including beneficial genes in the horticultural, animal husbandry, and aquatic products industries)
- 1.我国稀有和特有的珍贵优良品种的研发、养殖、种植以及相关繁殖材料的生产(包括种植业、畜牧业、水产业的优良基因)

#### PROHIBITED

2. Development of genetically modified agricultural products, livestock, poultry and aquatic seeds and seedlings; production of genetically modified seeds (seedlings) 2.农作物、种畜禽、水产苗种转基因品种选育及其转基因种子(苗)生产

#### **PROHIBITED**

- 1. Research and development, cultivation, and growth of China's rare and precious breeds, and production of related reproductive materials (including beneficial genes in the horticultural, animal husbandry, and aquatic products industries)
- 1.我国稀有和特有的珍贵优良品种的研发、养殖、种植以及相关繁殖材料的生产(包括种植业、畜牧业、水产业的优良基因)

#### **PROHIBITED**

2. Development of genetically modified agricultural products, livestock, poultry and aquatic seeds and seedlings; production of genetically modified seeds (seedlings) 2.农作物、种畜禽、水产苗种转基因品种选育及其转基因种子(苗)

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	Changed "production" of genetically modified livestock and aquatic seeds and seedlings to "development"; added "agricultural products"; and removed "research of genetically modified organisms"		
PROHIBITED  3. Fishing in Chinese waters	PROHIBITED  3. Fishing in Chinese waters	PROHIBITED  3. Fishing in Chinese waters	PROHIBITED  3. Fishing in Chinese waters
3.我国管辖海域及内陆水域水产品	3.我国管辖海域及内陆水域水产品	3.我国管辖海域及内陆水域水产品	3.我国管辖海域及内陆水域水产品
捕捞	捕捞	捕捞	捕捞
二,采矿业 II. Mining			
PRHIBITED  1. Surveying and mining of tungsten, molybdenum, tin, antimony, and fluorite  1. 钨、钼、锡、锑、萤石勘查、	PROHIBITED 4. Surveying and mining of tungsten, molybdenum, tin, antimony, and fluorite 4.钨、钼、锡、锑、萤石勘查、	PROHIBITED 4. Surveying and mining of tungsten, molybdenum, tin, antimony, and fluorite 4.钨、钼、锡、锑、萤石勘查、	PROHIBITED 4. Surveying and mining of tungsten, molybdenum, tin, antimony, and fluorite 4.钨、钼、锡、锑、萤石勘查、
PROHIBITED 2. Surveying, mining, and selection of rare-earth minerals 2.稀土勘查、开采、选矿	PROHIBITED 5. Surveying, mining, and selection of rare-earth minerals 5.稀土勘查、开采、选矿	PROHIBITED 5. Surveying, mining, and selection of rare-earth minerals 5.稀土勘查、开采、选矿	PROHIBITED 5. Surveying, mining, and selection of rare-earth minerals 5.稀土勘查、开采、选矿
PROHIBITED 3. Surveying, mining, and selection of radioactive minerals 3.放射性矿产的勘查、开采、选矿	PROHIBITED 6. Surveying, mining, and selection of radioactive minerals 6.放射性矿产的勘查、开采、选 矿	PROHIBITED 6. Surveying, mining, and selection of radioactive minerals 6.放射性矿产的勘查、开采、选矿	PROHIBITED 6. Surveying, mining, and selection of radioactive minerals 6.放射性矿产的勘查、开采、选矿
三,制造业 III. Manufacturing			
(一)饮料制造业 (1.) Beverage Manufacturing Industry			

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

PROHIBITED  1. Processing of traditional Chinese green and special teas (including famous teas and black teas)  1.我国传统工艺的绿茶及特种茶加工(名茶、黑茶等)	Deleted		
(二)医药制造业 Pharmaceutica	als		
PROHIBITED  1. Processing of traditional Chinese medicines listed in the Regulations on Protecting Natural Medicinal Resources and Catalogue of Rare and Endangered Plants in China  1.列入《野生药材资源保护条例》  和《中国珍稀、濒危保护植物名录》的中药材加工	PROHIBITED 7. Processing of traditional Chinese medicines listed in the Regulations on Protecting Natural Medicinal Resources and Catalogue of Rare and Endangered Plants in China 7. 列入《野生药材资源保护管理条例》和《中国稀有濒危保护植物名录》的中药材加工 Revised from 2011 Catalogue: The Chinese title of "Catalogue of Rare and Endangered Plants in China" is revised slightly to reflect the regulation's current title, but this does not mark a substantive change	Deleted, but still prohibited/restricted by other domestic regulations	Deleted, but still prohibited/restricted by other domestic regulations
PROHIBITED  2. Preparation techniques for traditional Chinese medicine, such as steaming, frying, brewing, forging, and moxibustion, and production of Chinese medicine subject to trade secrets  2.中药饮片的蒸、炒、灸、煅等炮	PROHIBITED 8. Preparation techniques for traditional Chinese medicine, such as steaming, frying, brewing, forging, and moxibustion, and production of Chinese medicine subject to trade secrets 8.中药饮片的蒸、炒、灸、煅等炮	PROHIBITED 7. Preparation techniques for traditional Chinese medicine, such as steaming, frying, brewing, forging, and moxibustion, and production of Chinese medicine subject to trade secrets 7.中药饮片的蒸、炒、炙、煅等炮	PROHIBITED 7. Preparation techniques for traditional Chinese medicine, such as steaming, frying, brewing, forging, and moxibustion, and production of Chinese medicine subject to trade secrets 7.中药饮片的蒸、炒、炙、煅等炮

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	I		·
制技术的应用及中成药保密处方产	制技术的应用及中成药保密处方产	制技术的应用及中成药保密处方产	制技术的应用及中成药保密处方产
品的生产	品的生产	品的生产	品的生产
(三)有色金属冶炼及压延加工	기분 III. Smelting and processing of	nonferrous metals	
PROHIBITED  1. Smelting or processing of radioactive minerals  1.放射性矿产的冶炼、加工	PROHIBITED  9. Smelting or processing of radioactive minerals; manufacture of nuclear fuel  9.放射性矿产冶炼、加工,核燃料生产 Revised from 2011 Catalogue: Added "manufacture of nuclear fuel"	PROHIBITED 8. Smelting or processing of radioactive minerals; manufacture of nuclear fuel 8.放射性矿产冶炼、加工,核燃料生产	PROHIBITED 8. Smelting or processing of radioactive minerals; manufacture of nuclear fuel 8.放射性矿产冶炼、加工,核燃料生产
(四)专用设备制造业 IV. Special 6	equipment manufacturing		
PROHIBITED 1. Weapons and ammunition production 1.武器弹药制造	PROHIBITED 10. Weapons and ammunition production 10.武器弹药制造	PROHIBITED 9. Weapons and ammunition production 9.武器弹药制造	PROHIBITED 9. Weapons and ammunition production 9.武器弹药制造
(五)电气机械及器材制造业 V. El	ectronic machinery and equipment ma	anufacturing	
PROHIBITED  1. Open-cell (with direct discharge of acid mist) lead acid batteries, silveroxide button batteries with mercury, mercury alkaline manganese button batteries, mercury paste-type zincmanganese batteries, and nickelcadmium batteries  1.开口式(即酸雾直接外排式)铅酸电池、含汞扣式氧化银电池、含汞扣式碱性锌锰电池、糊式锌锰电池、锅镍电池制造	Deleted		

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(六)工业品及其他制造业 VI. Industrial and other manufacturing			
PROHIBITED 1. Ivory carvings 1.象牙雕刻	PROHIBITED 11. Ivory carvings 11.象牙雕刻	Deleted, but still prohibited/restricted by other domestic regulations	Deleted, but still prohibited/restricted by other domestic regulations
PROHIBITED 2. Tiger bone processing 2. 虎骨加工	PROHIBITED 12. Tiger bone processing 12. 虎骨加工	Deleted, but still prohibited/restricted by other domestic regulations	Deleted, but still prohibited/restricted by other domestic regulations
PROHIBITED 3. Bodiless lacquer ware production 3.脱胎漆器生产	Deleted		
PROHIBITED 4. Enamel products manufacturing 4.珐琅制品生产	Deleted		
PROHIBITED 5. Xuan paper and Chinese ink ingots 5.宣纸、墨锭生产	PROHIBITED 13. Xuan paper and Chinese ink ingots 13.宣纸、墨锭生产	PROHIBITED 10. Rice paper and ink ingot production 10. 宣纸、墨锭生产	PROHIBITED 10. Rice paper and ink ingot production 10. 宣纸、墨锭生产
PROHIBITED 6. Manufacture of carcinogenic products, those that cause deformities or mutations, or those that emit permanent organic pollutants 6.致癌、致畸、致突变产品和持久性有机污染物产品生产	Deleted		
四、电力、煤气及水的生产和供应业 IV. Electricity, Gas, and Water Production and Supplies			
PROHIBITED  1. Construction and operation of grids, excluding small grids, of coal-	PROHIBITED  14. Construction and operation, within the scope of large grids, of	Deleted, but still prohibited/restricted by other domestic regulations	Deleted, but still prohibited/restricted by other domestic regulations

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fired, steam-condensing power plants with single-machine capacity of less than 300,000 kW, or coal-fired, steam-condensing power heating units with single-machine capacity of less than 100,000 kW (small power networks are excluded)  1.小电网外,单机容量 30 万千瓦及以下燃煤凝汽火电站、单机容量 10 万千瓦及以下燃煤凝汽火电站、单机容量 10 万千瓦及以下燃煤凝汽抽汽两用热电联产电站的建设、经营	coal-fired, steam-condensing power plants with single-machine capacity of 300,000 kW or less, or coal-fired, steam-condensing power heating units with single-machine capacity of 200,000 kW 14.大电网范围内,单机容量 30 万千瓦及以下燃煤凝汽火电站、单机容量 20 万千瓦及以下燃煤凝汽油汽两用热电联产电站的建设、经营Revised from 2011 Catalogue: Changed "excluding small grids" to "within the scope of large grid", and changed "100,000 kW" to "200,000 kW"				
五、交通运输、仓储和邮政业	V. Transportation, Shipping, Storag	e, and Postal Industries			
PROHIBITED  1. Air traffic control companies  1.空中交通管制公司	PROHIBITED 15. Air traffic control 15.空中交通管制 Revised from 2011 Catalogue: Removed "companies"	PROHIBITED 11. Air traffic control 11. 空中交通管制	PROHIBITED 11. Air traffic control 11. 空中交通管制		
PROHIBITED  2. Postal companies and domestic express mail services  2.邮政公司、信件的国内快递业务	PROHIBITED 16. Postal companies and domestic express mail services 16.邮政公司、信件的国内快递业务	PROHIBITED 12. Postal companies and domestic express mail services 12.邮政公司、信件的国内快递业务	PROHIBITED 12. Postal companies and domestic express mail services 12.邮政公司、信件的国内快递业务		
六、批发和零售业 VI. Wholesa	六、批发和零售业 VI. Wholesale and Retail Industry				
	PROHIBITED  17. Wholesale and retail sales of tobacco, cigarettes, re-dried tobacco leaves, and other tobacco products	PROHIBITED  13. Wholesale and retail sales of tobacco, cigarettes, re-dried tobacco leaves, and other tobacco products	PROHIBITED  13. Wholesale and retail sales of tobacco, cigarettes, re-dried tobacco leaves, and other tobacco products		

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七、租赁和商务服务业 VI. Leas	17.烟叶、卷烟、复烤烟叶及其他烟草制品的批发、零售 New ing and Business Services	13.烟叶、卷烟、复烤烟叶及其他烟 草制品的批发、零售	13.烟叶、卷烟、复烤烟叶及其他烟草制品的批发、零售
PROHIBITED  1. Social research surveys  1.社会调查	PROHIBITED 18. Social research surveys 18.社会调查 PROHIBITED 19. Chinese legal affairs consulting services (excluding providing information about the influence of China's legal environment) 19.中国法律事务咨询(提供有关中国法律环境影响的信息除外) Revised from 2011 Catalogue: Moved from restricted to prohibited; added "Chinese" and revised "legal" to "legal affairs"; Added "excluding providing information about the influence of China's legal environment."	PROHIBITED 14. Social research surveys 14. 社会调查 PROHIBITED 15. Chinese legal affairs consulting services (excluding providing information about the influence of China's legal environment) 15. 中国法律事务咨询(提供有关中国法律环境影响的信息除外)	PROHIBITED 14. Social research surveys 14. 社会调查 PROHIBITED 15. Chinese legal affairs consulting services (excluding providing information about the influence of China's legal environment) 15. 中国法律事务咨询(提供有关中国法律环境影响的信息除外)
八、科学研究、技术服务和地质	勘查业 Scientific Research, Techno	logy Services, and Geographic Surv	ey Industries
PROHIBITED  1. Research, development, and application of stem cell and genetic diagnosis and treatment technology  1.人体干细胞、基因诊断与治疗技术开发和应用  PROHIBITED  2. Geodetic surveys, ocean mapping,	PRPHIBITED 20. Research, development, and application of stem cell and genetic diagnosis and treatment technology 20.人体干细胞、基因诊断与治疗技术开发和应用 PROHIBITED 21. Geodetic surveys, ocean	PROHIBITED 16. Research, development, and application of stem cell and genetic diagnosis and treatment technology 16. 人体干细胞、基因诊断与治疗技术开发和应用 PROHIBITED 17. Geodetic surveys, ocean	PROHIBITED  16. Research, development, and application of stem cell and genetic diagnosis and treatment technology  16. 人体干细胞、基因诊断与治疗 技术开发和应用  PROHIBITED  17. Geodetic surveys, ocean

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aerial photographic surveys, plotting of administrative district borders, drawing up of topographic, basic, and digital navigation maps

2.大地测量、海洋测绘、测绘航空 摄影、行政区域界线测绘、地形图 和普通地图编制、导航电子地图编 制

mapping, aerial photographic surveys, plotting of administrative district borders, drawing up of topographic, world administrative region maps, national administrative region maps, provincial level and below administrative region maps, national education maps, local education maps and true threedimensional maps, drawing up of digital navigation maps, regional geological mapping, investigation of mineral geology, geophysics, geochemistry, hydrogeology, environmental geology, geological hazards, geological remote sensing, etc.

21. 大地测量、海洋测绘、测绘航空摄影、行政区域界线测绘、地形图、世界政区地图、全国政区地图、省级及以下政区地图、全国性教学地图、地方性教学地图和真三维地图编制、导航电子地图编制,区域性的地质填图、矿产地质、地球物理、地球化学、水文地质、环境地质、地质灾害、遥感地质等调查

Revised from 2011 Catalogue: Removed "basic maps"; added "world administrative region maps, national administrative region maps,

mapping, aerial photographic surveys, plotting of administrative district borders, drawing up of topographic, world administrative region maps, national administrative region maps, administrative region maps at the provincial level or below, national education maps, local education maps, terrestrial mobile surveying and true three-dimensional maps, drawing up of digital navigation maps, regional geological mapping, investigation of mineral geology, geophysics, geochemistry, hydrogeology, environmental geology, geological hazards, geological remote sensing, etc. 17.大地测量、海洋测绘、测绘航空 摄影、行政区域界线测绘、地形 图、世界政区地图、全国政区地 图、省级及以下政区地图、全国性 教学地图、地方性教学地图,地面 移动测量和真三维地图编制、导航 电子地图编制,区域性的地质填 图、矿产地质、地球物理、地球化 学、水文地质、环境地质、地质灾 害、遥感地质等调查

mapping, aerial photographic surveys, plotting of administrative district borders, drawing up of topographic, world administrative region maps, national administrative region maps, administrative region maps at the provincial level or below, national education maps, local education maps, terrestrial mobile surveying and true three-dimensional maps, drawing up of digital navigation maps, regional geological mapping, investigation of mineral geology, geophysics, geochemistry, hydrogeology, environmental geology, geological hazards, geological remote sensing, etc. 17.大地测量、海洋测绘、测绘航空 摄影、行政区域界线测绘、地形 图、世界政区地图、全国政区地 图、省级及以下政区地图、全国性 教学地图、地方性教学地图, 地面 移动测量和真三维地图编制、导航 电子地图编制,区域性的地质填 图、矿产地质、地球物理、地球化 学、水文地质、环境地质、地质灾 害、遥感地质等调查

<sup>\*</sup> This document is an unofficial translation by the US-China Business Council, to be used for reference only. The official Chinese-language version is the authoritative version.

→ →レモ川 IT  辛五八八十~八枚  空域  四	provincial level and below administrative region maps, national education maps, local education maps and true three-dimensional maps" and "regional geological mapping, investigation of mineral geology, geophysics, geochemistry, hydrogeology, environmental geology, geological hazards, geological remote sensing, etc."		
PROHIBITED  1. Construction and operation of national natural reserves and internationally recognized wetlands  1. 自然保护区和国际重要湿地的建	PROHIBITED 22. Construction and operation of national natural reserves and internationally recognized wetlands 22. 自然保护区和国际重要湿地的建	nment, and Public Infrastructure iv	lanagement Services
设、经营	设、经营		
PROHIBITED  2. Development of nationally protected indigenous animal and plant species  2.国家保护的原产于我国的野生动、植物资源开发	PROHIBITED 23. Development of nationally protected indigenous animal and plant species 23.国家保护的原产于我国的野生 动、植物资源开发	PROHIBITED 18. Conservation of nationally protected indigenous animal and plant species 18.国家保护的原产于我国的野生 动、植物资源开发	PROHIBITED 18. Conservation of nationally protected indigenous animal and plant species 18.国家保护的原产于我国的野生 动、植物资源开发
十、教育 X. Education			
PROHIBITED  1. Compulsory education institutions and military, police, political, party, and other educational institutions in special categories  1.义务教育机构,军事、警察、政治和党校等特殊领域教育机构	PROHIBITED 24. Compulsory education institutions and military, police, political, party, and other educational institutions in special categories 24.义务教育机构,军事、警察、政 治和党校等特殊领域教育机构	PROHIBITED 19. Compulsory education institutions 19.义务教育机构 Revised from 2015 Catalogue: Removed "military, police, political, party, and other educational	PROHIBITED 19. Compulsory education institutions 19.义务教育机构 Revised from 2015 Catalogue: Removed "military, police, political, party, and other educational

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		institutions in special categories", but still restricted/prohibited in other Chinese domestic laws	institutions in special categories", but still restricted/prohibited in other Chinese domestic laws
十一、文化、体育和娱乐业 XI. Cult	tural, Sports, and Entertainment Indus	try	
PROHIBITED  1. News organizations  1.新闻机构	PROHIBITED 25. News organizations 25.新闻机构	PROHIBITED 20. News organizations 20.新闻机构	PROHIBITED 20. News organizations (including, but not limited to, news agencies) 20. 新闻机构(包括但不限于通讯 社) Revised from 2015 and 2016 Catalogue: Added "(including, but not limited to, news agencies)"
PROHIBITED  2. Publication of books, newspapers, or magazines  2. 图书、报纸、期刊的出版业务	PROHIBITED 26. Publication of books, newspapers, or magazines 26. 图书、报纸、期刊的出版业务	PROHIBITED 21. Books, newspapers, journals, publishing business 21. 图书、报纸、期刊的出版业务	PROHIBITED 21.Books, newspapers, journals, editing and publishing business 21. 图书、报纸、期刊的编辑、出版业务 Revised from 2015 and 2016 Catalogue: Added "editing"
PROHIBITED 3. Audiovisual products and electronic publication and production business 3.音像制品和电子出版物的出版、制作业务	PROHIBITED 27. Audiovisual products and electronic publication and production business 27.音像制品和电子出版物的出版、制作业务	PROHIBITED 22. Audiovisual products and electronic publication and production business 22. 音像制品和电子出版物的出版、制作业务	PROHIBITED 22. Audiovisual products and electronic publication and production business 22. 音像制品和电子出版物的出 版、制作业务
PROHIBITED 4. All administrative levels of radio broadcasting channels or stations, television channels or stations, and television transmission networks (including transmission stations, relay	PROHIBITED 28. All administrative levels of radio broadcasting channels or stations, television channels or stations, and television transmission networks (including transmission stations, relay	PROHIBITED 23. Radio broadcasting channels or stations, television channels or stations, and television transmission networks (including transmission stations, relay stations, TV broadcast	PROHIBITED 23. Radio broadcasting channels or stations, television channels or stations, television transmission networks (including transmission stations, relay stations, TV broadcast

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stations, TV broadcast satellites, satellite uplink stations, satellite receiver platforms, microwave stations, monitoring platforms, and cable television transmission coverage networks)  4.各级广播电台(站)、电视台(站)、广播电视频道(率)、广播电视传输覆盖网(发射台、转播台、广播电视卫星、卫星上行站、卫星收转站、微波站、监测台、有线广播电视传输覆盖网)	stations, TV broadcast satellites, satellite uplink stations, satellite receiver platforms, microwave stations, monitoring platforms, and cable television transmission coverage networks)  28.各级广播电台(站)、电视台(站)、广播电视传输覆盖网(发射台、转播台、广播电视卫星、卫星上行站、卫星收转站、微波站、监测台、有线广播电视传输覆盖网)	satellites, satellite uplink stations, satellite receiver platforms, microwave stations, monitoring platforms, and cable television transmission coverage networks) 23. 各级广播电台(站)、电视台(站)、广播电视传输覆盖网(发射台、转播台、广播电视下量、卫星上行站、卫星收转站、微波站、监测台、有线广播电视传输覆盖网)	satellites, satellite uplink stations, satellite receiver platforms, microwave stations, monitoring platforms, and cable television transmission coverage networks), on demand broadcast television video, and satellite television broadcasting equipment ground installation service.  23. 各级广播电台(站)、电视台(站)、电视台(站)、广播电视传输覆盖网(发射台、转播台、广播电视卫星、卫星上行站、卫星收转站、微波站、监测台、有线广播电视传输覆盖网),广播电视视频点播业务和卫星电视广播地面接收设施安装服务 Revised from 2015 and 2016 Catalogue: Added "radio and television video on demand business and satellite television broadcasting ground receiving facilities installation services."
PROHIBITED 5. Radio and television production companies 5.广播电视节目制作经营公司	PROHIBITED 29. Radio and television production companies 29.广播电视节目制作经营公司	PROHIBITED 24. Radio and television production companies 24. 广播电视节目制作经营公司	PROHIBITED 24. Radio and television production (including imported) companies 24. 广播电视节目制作经营(含引 进业务)公司 Revised from 2015 and 2016 Catalogue: Added "(Including

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			attraction / introduction of business.)"
PROHIBITED 6. Film production and distribution companies and cinemas 6.电影制作公司、发行公司、院线公司 PROHIBITED 7. News websites, web streaming audio-visual services, locations with Internet-access services, and administration of culture-related aspects of the Internet (music excluded) 7.新闻网站、网络视听节目服务、互联网上网服务营业场所、互联网文化经营(音乐除外)	culture-related aspects of the Internet (music excluded) 31. 新闻网站、网络出版服务、网络视听节目服务、互联网上网服务营业场所、互联网文化经营(音乐	PROHIBITED 25. Film production and distribution companies and cinemas 25. 电影制作公司、发行公司、院线公司 PROHIBITED 26. News websites, web publishing services, web streaming audio-visual services, locations with Internetaccess services, and administration of culture-related aspects of the Internet (music excluded) 26.新闻网站、网络出版服务、网络视听节目服务、互联网上网服务营业场所、互联网文化经营(音乐除外)	PROHIBITED 25. Film production and distribution companies and cinemas 25. 电影制作公司、发行公司、院 线公司 PROHIBITED 26. Internet news information services, web publishing services, web streaming audio-visual services,
	PROHIBITED  32. Auction enterprises and antique stores operating auctions for cultural	PROHIBITED  27. The auction of cultural relics, auction enterprises, cultural relics	PROHIBITED  27. The auction of cultural relics, auction enterprises, cultural relics

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PROHIBITED		27. 经营文物拍卖的拍卖企业、文 物商店 Deleted, but still prohibited/restricted	27. 经营文物拍卖的拍卖企业、文物商店  Deleted, but still prohibited/restricted
8. Construction and operation of golf courses and villas 8.高尔夫球场、别墅的建设、经营	33. Construction of golf courses and villas 33.高尔夫球场、别墅的建设 Revised from 2011 Catalogue: Removed "operation"	by other domestic regulations	by other domestic regulations
十二、其他行业 Miscellaneous			
PROHIBITED  1. Projects that endanger the safety or performance of military installations  1.危害军事设施安全和使用效能的项目	PROHIBITED 34. Projects that endanger the safety or performance of military installations 34.危害军事设施安全和使用效能的项目	Deleted, but still prohibited/restricted by other domestic regulations	Deleted, but still prohibited/restricted by other domestic regulations
PROHIBITED 9. Gambling industry (including horse racing) 9.博彩业(含赌博类跑马场)	PROHIBITED 35. Gambling industry (including horse racing) 35.博彩业(含赌博类跑马场)	Deleted, but still prohibited/restricted by other domestic regulations	Deleted, but still prohibited/restricted by other domestic regulations
PROHIBITED 10. Pornography industry 10.色情业	PROHIBITED 36. Pornography industry 36.色情业	Deleted, but still prohibited/restricted by other domestic regulations	Deleted, but still prohibited/restricted by other domestic regulations
			PROHIBITED  28. Research institutes for the study of the humanities and social sciences  28. 人文社会科学研究机构  New
	PROHIBITED Construction and management of	Deleted, but still prohibited/restricted by other domestic regulations	Deleted, but still prohibited/restricted by other domestic regulations

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theme parks 大型主题公园的建设、经营	
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# 十三、国家和我国缔结或者参加的国际条约规定禁止的其他产业

XIII. Other industries prohibited by the state or by international treaties for which China adheres or has ratified

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