

Exhibit A: Details of Proposed Revisions

1. Entries Deleted

行业 Industry	技术名称 Technology Name
禁止出口技术 Technologies Prohibitive from Export	
农、林、牧、渔服务业 Agriculture, Forestry, Animal Husbandry and Fishery Service Industries	绿色植物生长调节剂制造技术 Production technologies of growth regulators of green plants
有色金属矿采选业 Non-ferrous Metal Ore Mining and Separating Industry	采矿工程技术 Mining engineering technologies
农副食品加工业 Agricultural and Sideline Food Processing Industry	肉类加工技术 Meat processing technologies
饮料制造业 Beverage Manufacturing Industry	饮料生产技术 Beverage production technologies
有色金属冶炼及压延加工业 Non-ferrous Metal Smelting and Rolling Processing Industry	有色金属冶金技术 Non-ferrous metal metallurgical technologies
专用设备制造业 Manufacturing Industry of Special Equipment	农用机械制造技术 Manufacturing technologies of agricultural machinery
限制出口技术 Technologies Restrictive from Export	
农、林、牧、渔服务业 Agriculture, Forestry, Animal Husbandry and Fishery Service Industries	畜禽饲料及兽用生长调节剂生产技术 Production technologies for livestock feed and animal growth regulators
	畜产品加工技术 Processing technologies for livestock products
	蜂类繁育和蜂产品采集、加工及利用技术 Technologies for bee breeding and collection, processing and utilization of bee products
	森林病虫害防治技术 Forest pest and disease prevention and control technologies
农副产品加工业 Agricultural and Sideline Food Processing Industry	粮食加工技术 Cereal processing technologies
	蛋品加工技术

	Egg product processing technologies
食品制造业 Food Manufacturing Industry	食品添加剂生产技术 Production technologies for food additives
饮料制造业 Beverage Manufacturing Industry	饮料生产技术 Beverage production technologies
纺织业 Textile Industry	纺织天然纤维制品及其加工技术 Natural fiber textile products and their processing technologies
	大豆蛋白纤维制造技术 Manufacturing technologies for soybean fibers
造纸及纸制品业 Papermaking and Paper Product Industry	造纸技术 Papermaking technologies
化学原料及化学制品制造业 Chemical Raw Material and Chemical Product Manufacturing Industry	化学原料生产技术 Production technologies for chemical raw materials
	化学农药生产技术 Production technologies for chemical pesticides
	染料生产技术 Dye production technologies
	催化剂生产技术 Production technologies for catalysts
	感光材料生产技术 Production technologies for photosensitive materials
	合成树脂及其制品生产技术 Production technologies for synthetic resin and its products
	工业炸药及其生产技术 Industrial explosives and their production technologies
工业雷管生产技术 Industrial detonator production technologies	
非金属矿物制品业 Non-metal Mineral Product Industry	日用陶瓷及其制品生产技术 Production technologies for domestic ceramics and their products
	耐火材料生产技术 Production technologies for fireproof materials
通用设备制造业 General Equipment Manufacturing Industry	锅炉制造的燃烧技术 Combustion technologies for boiler manufacturing
	工程机械的应用技术 (注：2020年修订《目录》时加入，本次修订拟删)

	除) Application technologies for engineering machinery (Note: added in the 2020 revision, deleted in this revision)
专用设备制造业 Special Equipment Manufacturing Industry	消防技术 Firefighting technologies
	刑事技术 Criminal technologies
电气机械及器材制造业 Electrical Machinery and Equipment Manufacturing Industry	电工材料生产技术 Production technologies for electrical materials
水上运输业 Water Transport Industry	液体货物运输技术 Liquid cargo transport technologies

2. Entries Added

行业 Industry	技术名称 Technology Name	控制要点 Control Points
禁止出口技术 Technologies Prohibitive from Export		
研究和试验发展 Research and Experimental Development	用于人的细胞克隆和基因编辑技术 Cell cloning and gene editing technologies for human use	<p>1. 体细胞克隆技术。包括核提取与移除技术、核移植技术、胚胎移植技术、细胞激活关键酶</p> <p>2. 用于人的基因编辑技术。包括 ZFN 技术、TALEN 技术和 CRISPR 技术、特异性核酸酶、同源重组技术、点敲除技术、基因导入与片段删除技术、多位点突变技术</p> <p>1. Somatic cell cloning technologies, including nucleus extraction and removal technology, nucleus transfer technology, embryo transfer technology, and cell activation of key enzymes</p> <p>2. Gene editing technologies for human use, including ZFN, TALEN and CRISPR technology, specific nucleases, homologous recombination technology, point knockout technology, gene introduction and fragment deletion technology, and multi-locus mutagenesis technology</p>
限制出口技术 Technologies Restrictive from Export		
农业 Agriculture	农作物杂交优势利用技术	1. 我国濒危、珍稀、重要物种以及这些物种可用于再生传代的个体、器官、组织、细胞、基因或

	Techniques for exploiting the advantages of hybridization in agricultural crops	<p>者可用于繁殖传代的种子、遗传信息等资源</p> <p>2. 我国濒危、珍稀、重要物种的杂交育种技术</p> <p>1. Endangered, rare and important species in China and the resources such as individuals, organs, tissues, cells, genes of such species which are usable for regeneration, or seeds and genetic information of these species that can be used for reproduction</p> <p>2. Hybrid breeding technologies for endangered, rare and important species in China</p>
有色金属矿采选业 Non-ferrous Metal Ore Mining and Separating Industry	采矿工程技术 Mining engineering technologies	<p>离子型稀土矿山浸取工艺</p> <p>Leaching technology of ionic rare earth in mine</p>
非金属矿物制品业 Non-metal Mineral Product Industry	光伏硅片制备技术 Photovoltaic silicon wafer preparation technologies	<p>大尺寸硅片技术、黑硅制备技术、超高效铸锭单晶/多晶工艺等</p> <p>large-size silicon wafer technology, black silicon preparation technology, super-efficient ingot casting single crystal/polycrystalline process, etc.</p>
通用设备制造业 General Equipment Manufacturing Industry	散料装卸输送技术 Bulk material handling and conveying technologies	<p>三车和四车翻车机、大型胶带输送机以及大型装卸船机等的设计和制造技术</p> <p>Design and manufacture technology for three-car and four-car tippers, large belt conveyors and large ship loaders</p>
通信设备、计算机及其他电子设备制造业 Manufacturing Industry for Communication Equipment, Computer and Other Electronic Equipment	激光雷达系统 Laser radar system	<p>车载激光探测及测距系统技术</p> <p>Vehicle mounted laser detection and ranging system technology</p>
研究和试验发展 Research and Experimental Development	CRISPR 基因编辑技术 CRISPR gene editing technologies	<p>1. 在具有伦理争议领域的应用，包括基因编辑胚胎细胞、卵子细胞、精子细胞</p> <p>2. 可造成重大危害后果的研究中的应用</p> <p>1. Applications in ethically controversial areas, including gene editing of embryonic cells, egg cells, and sperm cells</p>

		2. Applications in research that could have significant harmful consequences
	合成生物学技术 Synthetic biology technology	<p>1. DNA 高效合成与组装、定向进化、细胞工厂创建等重大技术</p> <p>2. 氨基酸、蛋白质、淀粉等重大化学品的合成技术</p> <p>3. 可造成重大危害后果的应用技术</p> <p>1. Major technologies such as efficient synthesis and assembly of DNA, directed evolution, and creation of cell factories</p> <p>2. Synthesis technologies of major chemicals such as amino acids, proteins, starch, etc.</p> <p>3. Application technologies that may cause significant harmful consequences</p>

3. Entries Amended

行业 Industry	技术名称 Technology Name	修改要点 Main Changes	备注 Note
禁止出口技术 Technologies Prohibitive from Export			
医药制造业 Medicine Manufacturing Industry	中国珍贵濒危植物药用成分提取加工技术 Extraction and processing technologies of medicinal components of precious and endangered plants in China	修改行业类别和技术名称：原行业类别为“畜牧业”，原技术名称为“中国特有的物种资源技术” Amend the industry name (originally “Animal Husbandry”) and the technology name (originally “technologies of species resources unique to China”)	控制要点未修订，均为“紫杉醇及相关技术” The control points remain unchanged as “paclitaxel and relevant technologies”
医药制造业 Medicine Manufacturing Industry	中药材资源及生产技术 Traditional Chinese medicinal material resources and	减少控制要点 Reduce control points	

	production technologies		
有色金属冶炼及压延加工业 Non-ferrous Metal Smelting and Rolling Processing Industry	稀土的提炼、加工、利用技术 Refining, processing and utilization technologies of rare earth	大幅修改控制要点 Significantly amend the control points	部分控制要点移入限制出口目录 Move some control points to the catalogue of technologies restrictive from export
交通运输设备制造业 Manufacturing Industry of Transportation Equipment	航天器测控技术 Spacecraft measurement and control technologies	控制要点增加举例说明 Add examples to the control points	
电信和其他信息传输服务业 Telecom and Other Information Transmission Service Industries	计算机网络技术 Computer network technologies	控制要点增加举例说明 Add examples to the control points	
	卫星应用技术 Satellite application technologies	控制要点略作补充 Slightly supplement the control points	
限制出口技术 Technologies Restrictive from Export			
农业 Agriculture	经济作物栽培繁育技术 Cultivation and breeding technologies for commercial crops	大幅修改控制要点 Significantly amend the control points	新版控制要点均为“烟草”相关技术，原版“苧麻”相关技术整体删除 The control points in the revised Catalogue are technologies related to tobacco; technologies related to ramie in the original Catalogue are entirely deleted
林业 Forestry	林木种质资源及其繁育技术 Tree germplasm resources and breeding technologies	修改控制要点措辞 Change the wording of the control points	

	园林植物、观赏植物 繁育技术 Breeding technologies for landscape plants and ornamental plants	修改控制要点措辞 Change the wording of the control points	
	野生动物人工繁育及 保护技术 Artificial breeding and protection technologies for wild animals	增加控制要点 Add control points	
农、林、牧、渔专业 及辅助性活动 Agriculture, Forestry, Animal Husbandry and Fishery Professional and Auxiliary Activities	兽药生产技术 Veterinary drug production technologies	增、减控制要点 Add and reduce control points	行业原名为“农、 林、牧、渔服务业” Amend the industry name (originally “Agriculture, Forestry, Animal Husbandry and Fishery Service Industries”)
	兽医卫生检疫技术 Veterinary hygiene and quarantine technologies	减少控制要点 Reduce control points	
	传统手工纸生产技术 Traditional hand-made paper technologies	修改技术名称，技术 原名为“林产化学产 品加工技术”；减少 控制要点 Amend the technology name (originally “processing technologies for forest chemical products”); reduce control points	
化学原料及化学制品 制造业 Chemical Raw Material and Chemical Product Manufacturing Industry	生物农药生产技术 Biopesticide production technologies	增、减控制要点 Add and reduce control points	
	合成纤维生产技术 Production technologies for synthetic fibers	减少控制要点 Reduce control points	
医药制造业	中药材资源及生产技	增、减控制要点	

Medicine Manufacturing Industry	术 Traditional Chinese medicinal material resources and production technologies	Add and reduce control points	
	生物技术药物生产技 术 Production technologies for biotech drugs	减少控制要点 Reduce control points	对 2020 年修订《目 录》的修改 This entry was added in the 2020 revision and further amended this time
橡胶和塑料制品业 Rubber and Plastic Product Industry	橡胶制品生产技术 Production technologies for rubber products	控制要点中增加参数 说明 Add parameters to the control points	行业原名为“橡胶制 品业” Amend the industry name (originally “Rubber Product Industry”)
非金属矿物制品业 Non-metal Mineral Product Industry	人工晶体生长与加工 技术 Growth and processing technologies for artificial lenses	增加控制要点 Add control points	
有色金属冶炼和压延 加工业 Non-ferrous Metal Smelting and Rolling Processing Industry	有色金属冶金技术 Non-ferrous metal metallurgical technologies	增加控制要点 Add control points	增加稀土相关技术 Add technologies related to rare earth
通用设备制造业 General Equipment Manufacturing Industry	3D 打印技术 3D printing technologies	增加控制要点 Add control points	对 2020 年《目录》 新增条目的修订 This entry was added in the 2020 revision and further amended this time
	机床产业基础共性技 术 Basic common technologies for	对控制要点进行限缩 性修改 Compact the control points	对 2020 年《目录》 新增条目的修订 This entry was added in the 2020 revision

	machine tool industry		and further amended this time
专用设备制造业 Special Equipment Manufacturing Industry	大型高速风洞设计建设技术 Design and construction technologies for large high-speed wind tunnels	增加控制要点 Add control points	对 2020 年《目录》新增条目的修订 This entry was added in the 2020 revision and further amended this time
交通运输设备制造业 Transportation Equipment Manufacturing Industry	船型设计与试验技术 Hull form design and testing technologies	增加描述，详细说明控制要点 Add descriptions to illustrate the control points	
通信设备、计算机及其他电子设备制造业 Communication Equipment and Other Electronic Equipment Manufacturing Industry	计算机核心硬件制造技术 Computer core hardware manufacturing technologies	修改技术名称和参数，详细说明控制要点 Amend the technology name and the parameters to illustrate the control points	技术名称原为“计算机硬件及外部设备制造技术” The original technology name is “computer hardware and external equipment manufacturing technology”
	无人机技术 UAV technology	增加控制要点 Add control points	对 2020 年《目录》新增条目的修订 This entry was added in the 2020 revision and further amended this time
仪器仪表制造业 Instrumentation Manufacturing Industry	机械量测量仪器、仪表制造技术 Manufacturing technology for mechanical value measuring apparatus and instruments	修改参数，详细说明控制要点 Amend the parameters to illustrate the control points	行业原名为“仪器仪表及文化、办公用机械制造业” Amend industry name (originally “Instrumentation, Culture and Office Machinery

			Manufacturing Industry”)
电力、热力生产和供应业 Electric power and heating power production and supply industry	大型电力设备设计技术 Design technologies for large electric power equipment	完善控制要点描述 Refine the descriptions of the control points	对 2020 年《目录》新增条目的修订 This entry was added in the 2020 revision and further amended this time
水上运输业 Water Transport Industry	港口设备制造技术 Port equipment manufacturing technologies	大幅修改控制要点 Significantly amend the control points	
电信、广播电视和卫星传输服务 Telecommunications, Radio, Television and Satellite Transmission Services	计算机网络技术 Computer network technology	修改参数，详细说明控制要点 Amend the parameters to illustrate the control points	行业原名为“电信和其他信息传输服务业” Amend the industry name (originally
	通信传输技术 Communication transmission technology	减少控制要点 Reduce control points	“Telecommunications and Other Information Transmission Services”)
计算机服务业 Computer Service Industry	信息处理技术 Information processing technologies	增、减控制要点；增加描述，详细说明控制要点 Add and reduce control points; add descriptions to illustrate the control points	详细列举“基于数据分析的个性化信息推送服务技术”（2020 年《目录》新增的控制要点） Enumerate types of “personalized information push service technology based on data analysis” (a control point added in the 2020 revision)
	密码安全技术 Password security technologies	修改控制要点措辞 Change the wording of the control points	对 2020 年《目录》新增条目的修订 This entry was added in the 2020 revision

			and further amended this time
	高性能检测技术 High-performance detection technologies	增加控制要点；控制要点中增加参数说明 Add control points; add parameters to the control points	对 2020 年《目录》新增条目的修订 This entry was added to the Catalogue in 2020 and amended this time
软件业 Software Industry	计算机通用软件编制技术 General computer software programming technologies	修改参数，详细说明控制要点 Amend the parameters to illustrate the control points	
专业技术服务业 Professional and Technical Services Industry	声学工程技术 Acoustic engineering technologies	细化控制要点描述 Refine the descriptions of the control points	