



Whereas the Governor in Council is of the opinion that the situation in Iran constitutes a grave breach of international peace and security that has resulted or is likely to result in a serious international crisis;

Therefore, Her Excellency the Governor General in Council, on the recommendation of the Minister of Foreign Affairs, pursuant to subsections 4(1) to (3) of the *Special Economic Measures Act*, hereby makes the annexed *Special Economic Measures (Iran) Regulations*.

CERTIFIED TO BE A TRUE COPY—COPIE CERTIFIÉE CONFORMÉMENT

CLERK OF THE PRIVY COUNCIL—LE GREFFIER DU CONSEIL PRIVÉ

SPECIAL ECONOMIC MEASURES (IRAN) REGULATIONS

INTERPRETATION

1. The following definitions apply in these Regulations.

“arms and related material” means any type of weapon, ammunition, military vehicle or military or paramilitary equipment, and includes their spare parts. (*armes et matières connexes*)

“Canadian financial institution” has the same meaning as in section 2 of the *Bank Act*. (*institution financière canadienne*)

“designated person” means a person who is in Iran, or is a national of Iran who does not ordinarily reside in Canada, and whose name is listed in Schedule 1. (*personne désignée*)

“Guide” has the same meaning as in section 1 of the *Export Control List*. (*Guide*)

“Iran” means the Islamic Republic of Iran and includes its political subdivisions. (*Iran*)

“Iranian financial institution” means a body corporate, trust, partnership, fund, unincorporated association or organization, established under the laws of Iran, that engages, directly or indirectly, in the business of providing financial services. (*institution financière iranienne*)

“Minister” means the Minister of Foreign Affairs. (*ministre*)

“pension” means a benefit paid under the *Old Age Security Act*, the *Canada Pension Plan* or an *Act respecting the Quebec Pension Plan*, R.S.Q. c. R-9, any superannuation, pension or benefit paid under or in respect of any retirement savings plan or under any retirement plan, any amount paid under or in respect of the *Garnishment, Attachment and Pension Diversion Act* or the *Pension Benefits Division Act*, and any other payment made in respect of disability. (*pension*)

“significant interest” means, in respect of a Canadian or Iranian financial institution, the beneficial ownership by a person, and any entity controlled by the person, of more than 10 % of a class of outstanding shares of the institution. (*intérêt substantiel*)

LIST

2. A person whose name is listed in Schedule 1 is a person in respect of whom the Governor in Council, on the recommendation of the Minister, is satisfied that there are reasonable grounds to believe is

- (a) a person engaged in activities that contribute, or could contribute, to Iran’s proliferation-sensitive nuclear activities, or to Iran’s activities related to the development of chemical, biological or nuclear weapons of mass destruction or delivery systems for such weapons;
- (b) a former or current senior official in the Islamic Revolutionary Guard Corps;
- (c) an associate or family member of a person set out in paragraph (a) or (b);
- (d) an entity owned or controlled by, or acting on behalf of, a person set out in paragraphs (a) or (b); or



- (e) a senior official of an entity set out in paragraph (d).

PROHIBITIONS

3. Subject to section 13, it is prohibited for any person in Canada and any Canadian outside Canada to

- (a) deal in any property, wherever situated, held by or on behalf of a designated person;
- (b) enter into or facilitate, directly or indirectly, any transaction related to a dealing referred to in paragraph (a);
- (c) provide any financial or other related service, including insurance or reinsurance, in respect of a dealing referred to in paragraph (a);
- (d) make any goods, wherever situated, available to a designated person; or
- (e) provide any financial or financial-related service to or for the benefit of a designated person.

4. (1) It is prohibited for any person in Canada and any Canadian outside Canada to export, sell, supply or ship any of the following goods, wherever situated, to Iran or any person in Iran or to deal with any of the following goods destined for Iran or any person in Iran:

- (a) any arms and related material the sale, supply or transfer of which is not prohibited by the *Regulations Implementing the United Nations Resolutions on Iran*;
- (b) any goods used in the refining of oil or the liquefaction of natural gas;
- (c) any of the goods listed in Schedule 2; or
- (d) any item listed in the Guide, with the exception of
 - (i) items 5001, 5011, 5101, 5102, 5103, 5201 and 5202, and
 - (ii) item 5400, unless the export, sale, supply or shipment of the good is otherwise prohibited by these Regulations.

(2) It is prohibited for any person in Canada and any Canadian outside Canada to provide or acquire any financial or other services to, from or for the benefit of, or on the direction or order of, any person in Iran in respect of any of the goods listed in subsection (1).

(3) It is prohibited for any person in Canada and any Canadian outside Canada to transfer, provide or communicate to Iran or any person in Iran

- (a) any technical data required for the processing, storing or handling of liquid natural gas; or
- (b) any technical data related to any of the goods listed in subsection (1).

5. It is prohibited for any person in Canada and any Canadian outside Canada to

- (a) provide or acquire financial services or any other services to, from or for the benefit of, or on the direction or order of, any person in Iran for the purpose of
 - (i) establishing an Iranian financial institution in Canada or a Canadian financial institution in Iran,



- (ii) establishing a branch, subsidiary or representative office of an Iranian financial institution in Canada or of a Canadian financial institution in Iran, or
 - (iii) acquiring a significant interest in an Iranian or Canadian financial institution;
- (b) if they are an entity referred to in paragraphs 9(a), (b), (f) or (g), provide or acquire correspondent banking services to, from or for the benefit of or on the direction or order of, an Iranian financial institution; or
- (c) purchase any debt obligation issued by the government of Iran.
6. (1) It is prohibited for any person in Canada and any Canadian outside Canada to make an investment in an entity in Iran that is owned or controlled by another entity in Iran and is engaged in the oil or natural gas industry.
- (2) It is prohibited for any person in Canada and any Canadian outside Canada to provide or acquire financial or other services to, from or for the benefit of or on the direction or order of a person in Iran for the purpose of investing in the oil or natural gas industry in Iran.
7. It is prohibited for any person in Canada and any Canadian outside Canada to knowingly provide a vessel that is owned or controlled by, or operating on behalf of, the Islamic Republic of Iran Shipping Lines with insurance services, or stevedoring, bunkering and lighterage and similar services, for the vessel's operation or maintenance.
8. It is prohibited for any person in Canada and any Canadian outside Canada to do anything that causes, assists or promotes, or is intended to cause, assist or promote, any act or thing prohibited by sections 3 to 7.

DUTY TO DETERMINE

9. Each of the following entities must determine on a continuing basis whether it is in possession or control of property owned or controlled by or on behalf of a designated person:
- (a) authorized foreign banks, as defined in section 2 of the *Bank Act*, in respect of their business in Canada or banks to which that Act applies;
 - (b) cooperative credit societies, savings and credit unions and caisses populaires regulated by a provincial Act and associations regulated by the *Cooperative Credit Associations Act*;
 - (c) foreign companies, as defined in subsection 2(1) of the *Insurance Companies Act*, in respect of their insurance business in Canada;
 - (d) companies, provincial companies and societies, as those terms are defined in subsection 2(1) of the *Insurance Companies Act*;
 - (e) fraternal benefit societies regulated by a provincial Act in respect of their insurance activities and insurance companies and other entities engaged in the business of insuring risks that are regulated by a provincial Act;
 - (f) companies to which the *Trust and Loan Companies Act* applies;
 - (g) trust companies regulated by a provincial Act;



- (h) loan companies regulated by a provincial Act;
- (i) entities that engage in any activity described in paragraph 5(h) of the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act*, if the activity involves the opening of an account for a client; and
- (j) entities authorized under provincial legislation to engage in the business of dealing in securities, or to provide portfolio management or investment counselling services.

DISCLOSURE

10. (1) Every person in Canada and every Canadian outside Canada must disclose without delay to the Commissioner of the Royal Canadian Mounted Police

- (a) the existence of property in their possession or control that they have reason to believe is owned or controlled, directly or indirectly, by a designated person or by an entity owned or controlled by a designated person; and
 - (b) information about a transaction or proposed transaction in respect of property referred to in paragraph (a).
- (2) No person contravenes subsection (1) by disclosing in good faith under that subsection.

APPLICATION TO NO LONGER BE A DESIGNATED PERSON

11. (1) A designated person may apply to the Minister in writing to have their name removed from Schedule 1.

(2) On receipt of an application, the Minister must decide whether there are reasonable grounds to recommend to the Governor in Council that the applicant's name be removed from the schedule.

(3) The Minister must make a decision on the application within 90 days after the day on which the application is received.

(4) The Minister must give notice without delay to the applicant of the decision taken.

(5) If there has been a material change in circumstances since the last petition was submitted, a person may submit another application under subsection (1).

APPLICATION FOR A CERTIFICATE

12. (1) A person claiming not to be a designated person may apply to the Minister for a certificate stating that they are not the person who has been designated under section 2.

(2) If it is established that the person is not a designated person, the Minister must issue a certificate to the applicant within 30 days after the day on which the application is received.

EXCLUSIONS

13. Section 3 does not apply in respect of



- (a) any dealing with the Islamic Republic of Iran Shipping Lines (IRISL) or an entity owned or controlled by it, or operating on its behalf, that has as its purpose the shipment of agricultural commodities from Canada to Iran, provided that the commodities are shipped in bulk carriers that carry only agricultural commodities;
 - (b) loan repayments to any person in Canada, or any Canadian abroad, in respect of loans entered into before the coming into force of these Regulations, enforcement of security in respect of those loans, or payments by guarantors guaranteeing those loans;
 - (c) pension payments to any person in Canada or any Canadian abroad;
 - (d) any transaction in respect of the accounts at a Canadian financial institution that are used for the regular business of the Embassy of Iran or its consular missions in Canada;
 - (e) any transaction in respect of the accounts at an Iranian financial institution that are used for the regular business of the Embassy of Canada or its consular missions in Iran;
 - (f) any transaction to international organizations with diplomatic status, United Nations agencies, the International Red Cross and Red Crescent Movement, or Canadian non-governmental organizations that have entered into a grant or contribution agreement with the Department of Foreign Affairs and International Trade and the Canadian International Development Agency, for the purpose of pursuing humanitarian relief work in Iran; and
 - (g) any transactions necessary for a Canadian to transfer any existing accounts, funds or investments of a Canadian held with a designated person to a non-designated person.
14. The prohibitions in sections 4 to 8 do not apply with respect to an activity that has as its purpose the safeguarding of human life, disaster relief or the providing of food or medicine.

APPLICATION BEFORE PUBLICATION

15. For the purpose of paragraph 11(2)(a) of the *Statutory Instruments Act*, these Regulations apply before they are published in the *Canada Gazette*.

COMING INTO FORCE

16. These Regulations come into force on the day on which they are registered.



SCHEDULE 1
(Section 2)

PERSONS

PART 1

ENTITIES

1. Aban Commercial and Industrial Group
2. Advanced Manufacturing Research Centre
3. Aerospace Industries Organization (AIO)
4. Aerospace Research Institute
5. Agriculture Engineering Research Institute in the Ministry of Jihad
6. Ahran Tejarat Co.
7. Ahwaz Electric Power Generation
8. Akbarieh Co.
9. Alp Company (PJS)
10. AMA Industrial Company
11. Ana Trading Company
12. Armed Forces Geographical Organization
13. ASALIB Co.
14. Asia Marine Network Pte. Ltd.
15. Asia Pearlite Casting Industries Co.
16. Baharan Factory Group
17. Bahrain Paint and Resin MFG Co. Ltd.
18. Bakhtaran Refinery
19. Bam Food Industry Development Co.
20. Bandar Abbas Refining Co.
21. Bank Mellat
22. Bank Melli
23. Bank Saderat
24. Bashir Industrial Complex
25. Bina Corrosion Consultants
26. Boweir Sanaat



27. Building and Housing Research Center (BHRC)
28. Burgman-Pars
29. Butane Company
30. Carbide Die Manufacturing
31. Caspian Industrial Research Laboratory
32. Cement Investment and Development Company
33. Charkheshgar
34. Chemical Equipment Ind. Inc.
35. Chemical Industries Group
36. Chemical Research and Development Company (CRDC)
37. CISCO Shipping Co. Ltd.
38. Daghigh Farayand Control Company
39. Daghigh Rizan Paya Hadid
40. Danesh Azmoon Teb Company
41. Davar Moharek Co.
42. Defence Industries Organization Training and Research Institute
43. Delijan Tube Rolling Company
44. DEMCO, Designing Engineering & Manufacturing Co.
45. Design Engineering Centre
46. Designing, Engineering & Manufacturing Development of Iran Khodro Co. (DEMICO)
- Heavy Metal Industries (HMI)
47. Djahantab Chemical Company
48. Ecxir Trading Company (ETC)
49. Electric Power Research Centre
50. Esfahan Chemical Industries
51. Esfahan Steel
52. Ettehad Aluminat Industrial Production Co.
53. Everend Asia Co. Machines & Indus. Services
54. Exir Pharmaceutical Co.
55. Export Development Bank of Iran
56. Fam Gostar Mahan Co.
57. Fan Pardazan



58. Faranir
59. Faranooran Research and Engineering Co.
60. Farasakht Industries
61. Farayaz Company
62. Farj Marine Industries
63. Fars Cement Co.
64. Fartash Sanat Pars Co.
65. Felezkar Heat Treating Co.
66. Ghavifekr Technical and Industrial Group
67. GIEC
68. Hara Institute
69. Harris Co. (Iran)
70. Helal Company
71. Hormozgan Regional Electricity Co.
72. Imaco Ltd.
73. Iman Hossein University
74. Industrial Machine Tools Fab. Mort Kort Machine Co.
75. Industrial SCG Limited
76. Institute of Applied Physics
77. Iran Aircraft Industries (IACI)
78. Iran Aircraft Manufacturing Industries (IAMI/IAMCO/HESA/HASA)
79. Iran Central Oil Fields Co.
80. Iran Chemical Industries
81. Iran Communications Industries (ICI)
82. Iran Electronics Industries (IEI)
83. Iran Felez Co.
84. Iran Galvano Technic Co. Ltd.
85. Iran Khodro Company
86. Iran Mineral Production and Supply Co.
87. Iran National Nanotechnology Council
88. Iran o Misr Shipping Company, Tehran Office



89. Iran Pan Am Co. Ltd.
90. Iran Pharmaceutical Development and Investment Company (IPDIC)
91. Iran Powder Metallurgy Complex
92. Iran Sanitary & Industrial Valves (ISIV) Co.
93. Iran Tablo Co.
94. Iran Tohid Co.
95. Iran Tractor Manufacturing Company
96. Iran Transfo Company
97. Iran Uranium Enrichment Company
98. Iran Zahion Company
99. Iranian Army
100. Iranian Blood Research and Fractionation Co.
101. Iranian Committee for the Reconstruction of Lebanon
102. Iranian Gas Engineering and Development Co.
103. Iranian Helicopter Company
104. Iranian Navy
105. Iranian Panam Interscience Systems Co. Limited
106. Iranian Research Organization for Science and Technology (IROST)
107. Iranian Space Agency
108. Iranian Veterinary Org.
109. IRGC Air Force (and IRGC Air Force Missile Command)
110. IRGC Logistics and Procurement
111. IRGC Missile Command
112. IRGC Navy
113. IRGC Qods Force
114. Islamic Republic of Iran Shipping Lines (IRISL)
115. IRISL Marine Services & Engineering Company
116. IRISL Multimodal Transport Co.
117. Isfahan Cement Co
118. Isfahan Optics Industry (EOI) (IOI)
119. Islamic Republic of Iran Air Force



120. Islamic Republic of Iran Broadcasting
121. Iston Manufacturing
122. Jihad Engineering Services Co.
123. Jahan Kimia Company
124. Jam Ara Co.
125. Jam Petrochemical
126. Javedan Mehr Toos
127. Kala Naft
128. Kamal Sanat Co.
129. Kanavaran Mining And Industrial Co
130. Kar-o-andisheh Engineers Corp.
131. Karoon Joint Venture Company
132. Karoon Petrochemical Co.
133. Kaveh Cutting Tools Company
134. Kavian Baris
135. Kavoush Joush Iran Co
136. Kayson Co.
137. Kermanshah Oil Refinery
138. Khatem-ol Anbiya Construction Organisation
139. Khazar Sea Shipping Lines
140. Khishavand Tasisat Co.
141. Khodrowsazan Iran Co.
142. Khorasan Science & Technology Park (KSTP)
143. Khuzestan Steel Co.
144. KIMIA RAZI CO. PJS
145. Kimia Terasheh Co.
146. Kooshkan Transformers
147. Khosh Paint and Resin Manufacturing Co.
148. Labopharm Co. Ltd.
149. M/S Iran Electromotor
150. Machine Sazi Arak (MSA)



151. Mahestan Import and Export
152. Malek Ashtar University
153. Mapna Co.
154. Marestan
155. Marestan Co. Ltd.
156. Marine Industries Organization (MIO)
157. Matin Foulad Sepahan Company
158. Matin Print Factory
159. Mavadkaran Jahed Noavar Co.
160. Mechanic Industries Group
161. Medical Products Distribution Co.
162. Medical Science Technology of Tehran
163. Megamotor Company
164. Mehr Engineering and Industrial Group
165. Mehrabad Industrial Co. (MIC)
166. Mehrasa-Sanat
167. Meisami Research and Development Complex
168. Meysami Research Centre
169. Mineral Export Company
170. Ministry of Defence Armed Forces Logistics (MODAFL)
171. Ministry of Defence Logistics Export
172. Missile Industries Group
173. Mizan Machine Manufacturing Group
174. Mouteh Gold Plant
175. N.A.B. Export Co.
176. Nafis Fanavaran Industrial Company
177. Naserin Vahid
178. National Iranian Copper Ind. Company
179. Naval Defence Missile Industry Group
180. Noavar Hava
181. Noavin Ltd.



182. Nouavar Shad Co Ltd
183. Novar Company
184. Nuclear Fuel Production and Procurement Company
185. Nuclear Industry Waste Management Company of Iran
186. Oil Industries Engineering and Construction
187. Oil Turbocompressor Engineering Co. (OTEC)
188. Omid Sanat Company
189. Otamach Ltd, Mantaghe Azad Ghabahar, Objective Technology and Machinery
190. Pak Shoo Chemical and Manufacturing Company
191. Palayesh Niroom
192. Parashnoor Photonics Co. (a.k.a. Parashnoor Laser & Electro-Optic Co.)
193. Pardis Engineering Group
194. Pars Khodro Ltd.
195. Pars MCS
196. Pars Pardad Company
197. Pars Switch Co.
198. Pars Tablo
199. Parsian Gas Field Maintenance Office
200. Passive Defence Organization
201. Pasteur Institute of Iran
202. Patent Co. Ltd.
203. Perse Sanco Ltd.
204. Peymab Company
205. Physics Research Center (PHRC)
206. Piston Manufacturing Company
207. Pouya Aflak Sepher
208. Poyeshar Ltd.
209. Proton Co.
210. Puladgaran Babol Khojasteh Alley
211. RAFIZCO
212. Rasa V. Asia



213. Razi Vaccine and Serum Research Institute in the Ministry of Jihad
214. Research and Development Group
215. Rey Power Generation Management Co.
216. Rolling Mill and Steel Production Co.
217. Rose Polymer Co.
218. SABA Battery Mfg. Co.
219. SABA Machinery Supplying Co.
220. Saba Niroom
221. Saba Power and Electricity Industries
222. Sabine Sard Khazar Co.
223. Sadid Pipe & Profile Co.
224. Saipa Wheel Manufacturing Co.
225. Samen Sanam
226. SANAM Electronics Co. (Shahid Shahabady Industrial Complex)
227. Sanka CNG Cylinders Factory
228. Savings Investment of Behshahr Industries Development
229. Scientific Medical Technology LLC
230. Sepidaj Co. Ltd.
231. Shafa-e-Sari Company
232. Shahfa Antibiotic Producing Co.
233. Shahid Beheshti University, Department of Engineering
234. Shahid Modarres Pharmaceutical Industries Co. (SMPI)
235. Shahid Sattari Air Force University
236. Shayan Company
237. Shayeganrahavard Co.
238. Sherkat Emha Pars Ltd.
239. Sherkate Sazandeye Makahazene Taht Pheshare Kawosh
240. Shian Co.
241. Shiller Novin
242. Shiroudi Industries
243. Shiveh Tolid Company Ltd.



244. Simin Godaz Khavar
245. Sino Darou Lab
246. Society Farayaz Chemical Research and Development Company
247. Sohban Pharmaceutical Co.
248. Soroush Sarzamin Asatir SSA, Tehran Office
249. South Industrial Power
250. State Purchasing Organization
251. Tabriz Petrochemical Company
252. Tabriz Tolid Mill Lang (T.M.T.) Co.
253. Tajhiz Gama Co.
254. Tajhiz Novin Tous
255. Talah Sanat
256. Tammam Engineering Services, Tehran Office
257. Tara Zob Manufacturing Co.
258. Tavator Sepahan
259. Technical & Engineering Nikan Group (TENG)
260. Tehran Padena Co.
261. Tehran SEI
262. Tehran University of Medical Sciences
263. Temad Co. Active Pharm. Ingredients
264. Teta Company
265. Three Star Services Co. (T.S.S. Co.)
266. TSI Co.
267. TSS Co.
268. Tunnel Boresh Machine
269. Turbine Blade Engineering and Manufacturing Co. (PARTO)
270. Turbine Engine Manufacturing Industries (TEM)
271. Turbo Compressor Manufacturer (JSC) Head Office
272. Urum Pooya Control Co.
273. Valfajr 8th Shipping Line Co. SSK
274. Vehicle and Equipment Industries Group (VEIG)



275. West Chemical Researching Co.
276. Yazd Science & Technology Park
277. Zanzan Cement Co.
278. Zolal Iran Co.
279. ZOUCAN MFG. Co.

PART 2
INDIVIDUALS

1. Abdolreza Abedzadeh
2. Al Akbar Salehi
3. Ali Akbarpour Jamshidian
4. Ali Fazli
5. Ali Saeedi Shahroudi
6. Amir Ali Hajizadeh
7. Bahman Reyhani
8. Behrouz Esbati
9. Farhoud Masoumian
10. Gholam Reza Jalali Farahani
11. Gholamhossein Ramezani
12. H. Afariden
13. Heydar Moslehi
14. Hossein Firuzabadi
15. Hossein Ghadyani
16. Hossein Hamadani
17. Hossein Nejat
18. Hossein Taeb
19. Javad Darvish-Vand
20. Javedan Mehr Toos
21. Kamran Daneshju
22. M. Shahriari
23. Mahmood Jannatian
24. Majid Fathinezhad



25. Manouchehr Foruzandeh
26. Mehdi Sa'adati
27. Mohammad Ali Jafari
28. Mohammad Baqer Zolqadr
29. Mohammad Hossein Saffar Harandi
30. Mohammad Pakpour
31. Mohammad Shafi'i Rudsari
32. Mohammad Yusef Shakeri
33. Mostafa Mohammad Najjar
34. Nima Alazdeh Tabari
35. Qassem Kargar
36. Qolam Reza Ahmadi
37. Rostam Qasemi
38. S.A.H. Feghhi
39. Said Esmail Khalilipour
40. Sekhavatmand Davudi
41. Seyyed Mahdi Farahi
42. Yadollah Javani



Schedule 2
(Section 4)

GOODS

Item	Column 1 Goods	Column 2 Description
1.	Aerodynamic particle size measuring equipment	Any equipment designed to measure in real time the aerodynamic particle size of aerosols in the range of 0.1 to 50 micrometers
2.	Aerosol generators	Any equipment capable of producing aerosols of radioactive, chemical or biological materials with aerodynamic particle sizes in the range of 0.1 to 50 micrometres.
3.	Aluminum or stainless steel alloy valves, piping, tubing and fittings	Bellows-sealed valves made of aluminium alloy or stainless steel type 304 or 316 L, that are not specified in the <i>Export Control List</i> .
4.	Aluminium alloy and its products: piping, tubing, fittings, flanges, forging, castings and other unfinished products in any form, and any waste or scrap	Aluminium and its alloys that are not specified in the <i>Export Control List</i> and that (a) are capable of an ultimate tensile strength of 460 MPa or more at 293 K (20°C); or (b) have a tensile strength of 415 MPa or more at 298 K (25°C).
5.	Argon ion lasers	Argon ion lasers that are not specified in the <i>Export Control List</i> and have an average output power equal to or greater than 5 W.
6.	Autoclaves (double-ended)	Double-ended or pass-through autoclaves with internal volume greater than 1m ³ , bioseal, interlocking doors, and/or warning lights or audible alarms.
7.	Automated take-off or landing systems	Systems that are usable in the systems specified in entry 6-1.A.2 of the Guide and are capable of operating vehicles with a stall speed in excess of 30 knots.
8.	Batch centrifuges	Batch centrifuges with a rotor capacity of 25 L or greater, usable with biological material.
9.	Bellows-sealed scroll compressors and vacuum pumps	(1) The following vacuum pumps: (a) turbomolecular pumps having a flow-rate equal to or greater than 400 l/s; (b) roots-type roughing pumps having a volumetric aspiration flow-rate greater than 200 m ³ /hr; (c) bellows-sealed, scroll, dry pumps; and (d) bellows-sealed, scroll, dry compressor pumps. (2) Vacuum pumps that are not specified in the <i>Export Control List</i> and that: (a) are suitable for corrosive fluids; and (b) have a maximum flow-rate greater than 5 m ³ /hr, measured under standard temperature and pressure conditions of 273 K (0°C) and 101.3 kPa, respectively; and (c) are pumps in which all surfaces that may come into direct contact with fluids consist of stainless steel, aluminium alloy or a combination of the two.
10.	Chlorine Trifluoride	Chemical Abstracts Service registry number 7790-91-2
11.	Clean rooms	Class 1000 to 10000
12.	Chromium and nickel alloy and its products: chemical process equipment, specially designed parts for that equipment, forging, castings and other unfinished products in any form, and waste or scrap made from nickel and chromium alloys	Chemical process equipment including reaction vessels, reactors or agitators, storage tanks, containers or receivers, heat exchangers or condensers, distillation, or absorption columns, valves, pumps, piping, tubings, fittings, flanges, plates, coils. Chromium and nickel alloys made or lined with more than 4% by weight of nickel and with more than 13% by weight of chromium that are not specified in the <i>Export Control List</i> .
13.	Contamination monitors	Any portable, transportable or handheld equipment designed to detect the presence of chemical warfare agents in real time, as listed in the Annexes to the Chemical Weapons Convention.



Item	Column 1 Goods	Column 2 Description
14.	Cooling systems (freon or chilled water) and heat exchangers	Cooling systems with capacities exceeding 350 kW.
15.	Copper-beryllium alloy parts, plates, sheets or rods	Metal alloys, metal alloy powder and alloyed materials as follows: Copper-beryllium alloys, with (a) thermal conductivity in excess of 100 W/m K at 25° C; (b) tensile strength in excess of 400 MPa; or (c) low cycle fatigue life of 10,000 cycles or more at 125° C at a maximum stress of 100 MPa.
16.	Cryogenic ultramicrotome and parts of it	Cryogenic ultramicrotomes capable of sectioning materials to a thickness of 1 micrometre or less, and replacement parts for them.
17.	Cyclone separators	Cyclone separator systems, including their parts, software and technology, using a linear or circular flow of gases or mixtures of gases that are capable of sorting particulate matter with an average diameter greater than or equal to 5 micrometres and less than or equal to 600 micrometres.
18.	Decanning and decladding equipment	Mechanical equipment designed or usable for decanning or decladding spent nuclear reactor fuel as part of a fuel processing process.
19.	Drum drying equipment	Any drum drying equipment capable of producing dry particles of radioactive, chemical or biological materials with aerodynamic particle sizes in the range of 0.1 to 50 micrometres.
20.	Electrical power generators	Electrical power generators having a maximum generation rating greater than 1 MW.
21.	Eddy current test instruments and parts	Eddy current test instruments and replacement parts for them capable of operating with a near gap of less than or equal to 2.0 mm and whose resolution is better than 1.5 micrometres (RMS) or whose bandwidth is in excess of 100 Hz.
22.	Electrical power supply units and transformers	High voltage direct current power supplies that are not specified in the <i>Export Control List</i> and (a) are capable of continuously producing 10 kV or more over a period of 8 hours, with output power of 5 kW or more with or without sweeping; and (b) have current or voltage stability better than 0.1% over a period of 4 hours.
23.	Electrolytic cells for fluorine products	Electrolytic cells that are not specified in the <i>Export Control List</i> that (a) are used for fluorine production; and (b) have an output capacity greater than 100 g of fluorine per hour.
24.	Fibrous or filamentary materials	The following fibrous or filamentary materials or preregs that are not specified in the <i>Export Control List</i> : (a) carbon or aramid fibrous or filamentary materials having either (i) a specific modulus exceeding 10×10^6 m, or (ii) a specific tensile strength exceeding 17×10^4 m; (b) glass fibrous or filamentary materials having either (i) a specific modulus exceeding 3.18×10^6 m, or (ii) a specific tensile strength exceeding 76.2×10^3 m; and (c) thermoset resin-impregnated continuous yarns, rovings, tows and tapes with a width of 15 mm or less (preregs), made for carbon or glass fibrous or filamentary materials.



Item	Column 1 Goods	Column 2 Description
25.	Filament winding machines and related equipment	<p>(1) Filament winding machines and related equipment that</p> <p>(a) have motions for positioning, wrapping and winding fibres coordinated and programmed in two or more axes;</p> <p>(b) are specially designed to fabricate composite structures of laminates from fibrous or filamentary materials; and</p> <p>(c) are capable of winding cylindrical rotors of diameter between 75 and 400 mm and lengths of 300 mm or greater.</p> <p>(2) Coordinating and programming controls for filament winding machines specified in subsection (1).</p> <p>(3) Mandrels for filament winding machines specified in subsection (1).</p>
26.	Flow-forming machines	<p>Flow-forming machines and/or spin-forming machines capable of flow-forming functions and mandrels, as follows:</p> <p>(a) machines that have three or more rollers and that can be equipped with numerical control units or a computer control.</p> <p>(b) rotor-forming mandrels designed to form cylindrical rotors with an inside diameter between 75 and 400 mm.</p>
27.	Frequency changers (inverters) and specially designed software for them	<p>(1) Frequency changers that</p> <p>(a) have multiphase frequency output;</p> <p>(b) are capable of providing power of 40W or greater;</p> <p>(c) are capable of operating anywhere between 600 and 2000 Hz; and</p> <p>(d) have frequency control less than 0.2%.</p> <p>(2) Specially designed software for these frequency changers.</p>
28.	Gaskets and O-rings	<p>Seals and gaskets made of</p> <p>(a) copolymers of vinylidene fluoride having 75% or more beta crystalline structure without stretching;</p> <p>(b) fluorinated polyimides containing 10% by weight or more of combined fluorine;</p> <p>(c) fluorinated phosphazene elastomers containing 30% by weight or more of combined fluorine;</p> <p>(d) polychlorotrifluoroethylene (PCTFE);</p> <p>(e) viton fluoro-elastomers; or</p> <p>(f) polytetrafluoroethylene (PTFE).</p>
29.	Glove boxes	Any glove boxes or similar devices with remote manipulators that can provide the operator with protection from radiation or radioactive materials.
30.	Grinding equipment	Machine tools for grinding that have positioning accuracies which, all compensations available, are equal to or less than 15 µm along any linear axis according to ISO 230/2 (1988), that are not specified in the <i>Export Control List</i> .



Item	Column 1 Goods	Column 2 Description
31.	Heat exchangers	Heat exchangers or condensers that are not specified in the <i>Export Control List</i> with a heat transfer surface area greater than 0.05 m ² and less than 30 m ² , if all surfaces that may come into direct contact with fluids consist of <ul style="list-style-type: none"> (a) alloys having, by weight: <ul style="list-style-type: none"> (i) more than 25% nickel, and (ii) more than 20% chromium; (b) fluoropolymers; (c) glass (including vitrified or enamelled coatings or glass lining); (d) graphite or carbon graphite; (e) nickel or alloys with more than 40% nickel by weight; (f) tantalum or tantalum alloys; (g) titanium or titanium alloys; (h) zirconium or zirconium alloys; (i) silicon carbide; (j) titanium carbide; (k) stainless steel; or (l) a combination of the materials specified in paragraphs (a) to (k).
32.	Heat treatment and sintering furnaces	Controlled-atmosphere heat treatment furnaces capable of operation at temperatures above 400°C.
33.	HEPA filters	HEPA filters of a frame area of 0.0625m ² or larger with a DOP rating of 99.997% (at 0.3 micron) or higher.
34.	High-speed balancing equipment, technology and software	The following balancing machines and related equipment: <ul style="list-style-type: none"> (a) balancing machines that are <ul style="list-style-type: none"> (i) not designed or modified for dental or other medical equipment, (ii) not capable of balancing rotors or assemblies which have a mass greater than 3 kg, (iii) capable of balancing rotors or assemblies at speeds greater than 12 500 rpm, (iv) capable of correcting imbalance in two planes or more, and (v) capable of balancing to a residual specific imbalance of 0.2 g mm/kg of rotor mass; and (b) indicator heads usable with machines specified in paragraph (a).
35.	High speed cameras	Electronic framing cameras having a speed exceeding 1000 frames per second.
36.	Lead in sheets or blocks/bricks	Must be suitable for use in shielding.
37.	Liquid pumps	Multiple-seal and seal-less pumps that are not specified in the <i>Export Control List</i> <ul style="list-style-type: none"> (a) that are suitable for corrosive fluids; and (b) that have a maximum flow-rate greater than 0.1 m³/hr; and (c) in which all surfaces that may come into direct contact with fluids consist of <ul style="list-style-type: none"> (i) stainless steel, (ii) aluminium alloy, or (iii) a combination of the materials specified in subparagraphs (i) and (ii).
38.	Magnetic Alloys in thin strip form	Magnetic alloy materials in sheet or thin strip form with a thickness of 0.1 mm or less, made of iron-chromium-cobalt, iron-cobalt-vanadium, iron-chromium-cobalt-vanadium or iron-chromium.



Item	Column 1 Goods	Column 2 Description
39.	Mass spectrometers	<p>The following mass spectrometers that are not specified in the <i>Export Control List</i> that are capable of measuring ions of 200 atomic mass units or more and have a resolution of better than 2 parts in 200:</p> <ul style="list-style-type: none"> (a) inductively coupled plasma mass spectrometers (ICP/MS); (b) glow discharge mass spectrometers (GDMS); (c) thermal ionization mass spectrometers (TIMS); (d) electron bombardment mass spectrometers with a source chamber constructed from, lined with or plated with, materials resistant to corrosion by UF₆; (e) molecular beam mass spectrometers with either <ul style="list-style-type: none"> (i) a source chamber constructed from, lined with or plated with, stainless steel or molybdenum and equipped with a cold trap capable of cooling to 193 K (-80°C) or less, or (ii) a source chamber constructed from, lined with or plated with, materials resistant to corrosion by UF₆; and (f) mass spectrometers equipped with a microfluorination ion source usable with actinides or actinide fluorides;
40.	Metal powder production equipment of spherical or atomised materials and specially designed components not specified in the <i>Export Control List</i>	<p>Includes but is not limited to the following equipment:</p> <ul style="list-style-type: none"> (a) plasma generators (high frequency arc jet) usable for obtaining sputtered or spherical metallic powders; and (b) electroburst equipment usable for obtaining sputtered or spherical metallic powders.
41.	Nanopowder synthesis equipment and specially designed components for it	Equipment capable of synthesizing ceramics and metallic powders to produce nanoparticles from 20 nm to 100 nm.
42.	Nickel and nickel alloys: chemical process equipment, specially designed parts for that equipment, forging, casting and other unfinished products in any form, and waste or scrap made from nickel and nickel alloys	Includes but is not limited to reaction vessels, reactors, agitators, storage tanks, containers or receivers, heat exchangers or condensers, distillation or absorption columns, valves, pumps, piping, tubing, fittings, flanges, blocks, plates and coils that are made or lined with nickel or nickel alloys with more than 30% by weight of nickel and not specified in the <i>Export Control List</i> .
43.	Nucleic acid synthesisers	Any device designed to produce oligonucleotides from nucleic acids or derivatives.
44.	Orbital or reciprocal shakers	Orbital or reciprocal shakers with a total flask capacity greater than 250 L, usable for use with biological materials.
45.	Oxidation furnaces	Furnaces capable of operation at temperatures over 400° C.
46.	Perfluorinated lubricants	Perfluoroaliphatic ethers in monomeric or polymeric form.
47.	Pressure transducers with wetted ends that include 316 stainless steel and ceramic	<p>Pressure transducers that are not specified in the <i>Export Control List</i></p> <ul style="list-style-type: none"> (a) with pressure-sensing elements made of, or protected by, materials resistant to corrosion by UF₆, including stainless steel or ceramics; (b) capable of measuring absolute pressures of up to 200 kPa; and (c) having either <ul style="list-style-type: none"> (i) a full scale of less than 200 kPa and an accuracy of better than ± 1% of full scale; or (ii) a full scale of 200 kPa or greater and an accuracy of better than 2 kPa.
48.	Ring magnets	<p>Permanent magnetic materials in the shape of rings that</p> <ul style="list-style-type: none"> (a) have an outside diameter between 30mm and 90mm; and (b) are made of aluminium-nickel-cobalt, ferrites, samarium-cobalt, or neodymium-iron-boron.



Item	Column 1 Goods	Column 2 Description
49.	Riot gear	Riot helmets and associated equipment, balaclavas, flashbangs, sting-ball grenades, impact munitions, chemical munitions, clothing specifically used for physical protection in riot control situations, batons and paintball guns.
50.	Shaking incubators	Shaking incubators with a total flask capacity greater than 250 L, usable with biological materials.
51.	Sintered metal filters employing monel or other high nickel content alloys	Sintered metal filters made of (a) nickel; or (b) nickel alloy with a nickel content of 40% or more by weight.
52.	Sintering presses	Sintering systems, including parts, software and technology for them, capable of generating a temperature in excess of 999° C or atmospheric pressure of less than 2 atmospheres.
53.	Spray drying equipment	Spray drying equipment usable with biological material capable of producing a mean particle size of 15 microns or less, and the following components: spray/atomizer units, cyclones, classifiers, and electronic control units.
54.	Sulphuric acid and Vanadium Pentoxide	Chemical Abstract Service registry number 7664-93-9 and Chemical Abstract Service registry number 1314-62-1, respectively.
55.	Thermal spraying systems or equipment for coating substrates and specially designed software and technology	(1) Thermal spraying systems or equipment that (a) are designed or modified to coat substrates with any of the following: (i) alloys having, by weight (A) more than 25% nickel, and (B) more than 20% chromium, (ii) fluoropolymers, (iii) glass (including vitrified or enamelled coatings or glass lining), (iv) graphite or carbon graphite, (v) nickel or alloys with more than 40% nickel by weight, (vi) tantalum or tantalum alloys, (vii) titanium or titanium alloys, (viii) zirconium or zirconium alloys, (ix) silicon carbide, (x) titanium carbide, (xi) stainless steel, (xii) ceramics, and (xiii) a combination of the materials specified in paragraphs (a) to (k); and (b) use any of the following techniques: (i) wire arc spray, (ii) flame spray (wire or powder), (iii) atmospheric and vacuum plasma spray, (iv) high velocity oxy fuel, (v) cold spray, (vi) warm spray, and (vii) detonation. (2) Specially designed software and technology for that thermal spraying systems or equipment.



Item	Column 1 Goods	Column 2 Description
56.	Tissue culture vessel	Tissue culture cultivation vessels in which each vessel has an effect growth surface area of 450 cm ² or greater.
57.	Titanium, titanium alloys and their products	Titanium alloy and its products: piping, tubing, fittings, flanges, forging, castings and other unfinished products in any form, and waste or scrap.
58.	Tributyl phosphate (TBP)	Chemical Abstract Service registry number 126-73-8
59.	Tunnel boring equipment and specially designed components	Includes tunnel-boring, tunnel-excavating machines, earth pressure balance machines, slurry shield machines, drill faces and roadheader tunnel excavating machines.
60.	Vibration monitoring and analysis equipment, including accelerometers, signal conditioning amplifiers and vibration analysis software	<p>The following vibration test systems and equipment that are not specified in the <i>Export Control List</i>:</p> <p>(a) vibration test systems employing feedback or closed loop techniques and incorporating a digital controller, capable of vibrating a system at an acceleration equal to or greater than 10 g rms between 20 Hz and 2 kHz and imparting forces equal to or greater than 50 kN, measured bare table;</p> <p>(b) digital controllers, combined with vibration test software, with a real-time bandwidth greater than 5 kHz usable with vibration test systems specified in paragraph (a);</p> <p>(c) vibration thrusters (shaker units), with or without associated amplifiers, capable of imparting a force equal to or greater than 50 kN, measured bare table, and usable in vibration test systems specified in paragraph (a);</p> <p>(d) test piece support structures and electronic units usable with multiple shaker units in a system capable of providing an effective combined force of 50 kN or greater, measured bare table, and usable in vibration systems specified in paragraph (a); and</p> <p>(e) components for those vibration test systems and equipment.</p>

