(*b*) Equipment for the deposition of thin film, the coating of thin film, or the working thereof;

(*c*) Specialized parts for the above equipment.

1205. Electro-chemical, semi-conductor and radio-active devices for the direct conversion of chemical, solar or nuclear energy to electrical energy, as follows—

(*a*) Electro-chemical devices, as follows—

(i) Fuel cells, including regenerative cells i.e. cells for generating electric power, to which all the consumable components are supplied from outside the cell;

(ii) Primary cells having any of the following characteristics—

(1) possessing a means of activation and having an open circuit storage life in the unactivated condition, at a temperature of 70°F. (21°C.), of 10 years or more;

(2) capable of operating at temperatures from below −13°F. (−25°C.) to above 131°F. (55°C.), including cells and cell assemblies (other than dry cells) possessing self-contained heaters;

(*b*) Photo-voltaic cells with a power output of 8 milliwatts or more per square centimetre under 100 milliwatts per square centimetre tungsten (2800°K) illumination; all gallium arsenide photo-voltaic cells, excluding those having a power output of less than 4 milliwatts measured by the above technique;

(*c*) Power sources other than nuclear reactors based on radio-active materials systems, excluding—

(i) Those having an output power of less than 0.5 watt and a total weight of more than 200 lb. (99.7 kg.);

(ii) Those specially designed and developed for medical use within the human body;

(*d*) Specialized parts, components and sub-assemblies of the above devices.

1206. Electric arc devices for generating a flow of ionized gas in which the arc column is constricted (except devices wherein the flow of gas is for isolation purposes only and devices of less than 80 Kw for either cutting, welding, plating or spraying or any combination thereof); equipment incorporating such devices; specially designed parts, accessories and control or test equipment for such devices.

GROUP D.

GENERAL INDUSTRIAL EQUIPMENT.

4305. Metal rolling mills.

1352. Machinery specially designed for the extrusion of tetrafluoroethylene polymer and copolymer coagulated dispersions or powders or pastes derived therefrom, and parts and components therefor, and other machinery specially designed for the manufacture of wire and cable specified under item 1754(*c*), Group I.

1353. Equipment specially designed for the manufacture of communication cable specified under item 1526, Group F.

1355. Machinery and equipment for the manufacture of electronic equipment, components and materials and related test gear, parts and specialized controls and accessories, as follows—

(*a*) For tubes (valves) and parts and sub-assemblies thereof—

(i) Equipment specially designed for the manufacture of embargoed types; and

(ii) Equipment for automatic or semi-automatic assembly, testing or sorting or any of combination thereof, except standard equipment for the assembly of entertainment-type receiver tubes or television picture tubes not specified under item 1541, Group F;

(*b*) For semi-conductor devices for electronic equipment and components covered by item 1564(*a*), Group F, and for parts, materials and sub-assemblies thereof—

(i) Equipment specially designed for the manufacture of embargoed types and of any silicon transistor;

(ii) Equipment for slicing, dicing, scribing, slice breaking, probing, testing or sorting or any combination thereof;

(iii) Bonders and welders;

(iv) Masks;

(v) Equipment for the manufacture of masks or the creation of a photosensitive pattern on the surface of a semi-conductor or insulating substrate; and

(vi) Equipment for purifying or processing semi-conductor materials except equipment specially designed for the zone purification of germanium;

(*c*) For depositing or printing on insulating materials or otherwise forming, *in situ*, component parts other than basic wiring.

1356. Machinery for the working of synthetic film used as a dielectric (condenser tissue) or as magnetic recording tape, as follows—

(*a*) Vacuum metallizing machinery specially designed for the continuous coating with metallized sheathing of synthetic film for dielectric use in the manufacture of capacitors covered by item 1560, Group F; and

(*b*) Equipment specially designed for the continuous coating of polyester base magnetic tape intended for the equipment subject to embargo under item 1572, Group G.

1357. Machines of which the motions for positioning, wrapping and winding of fibres are co-ordinated and programmed in three or more axes, specially designed to fabricate composite structures or laminates from fibrous and filamentary materials, and the mechanical parts of the machines, co-ordinating and programming controls, and specialized parts, components and accessories therefor.

1361. Wind tunnels, as follows—

(*a*) Supersonic (Mach 1.4 to Mach 5.5), hypersonic (Mach 5.5 to Mach 15) and hypervelocity (above Mach 15) wind tun-

nels, except wind tunnels specially designed for educational purposes and having a test section size (measured internally) of less than 25 cm. (By "test section size" is understood the diameter of the circle, or the side of the square, or the longest side of the rectangle constituting possible shapes of the test section.)

(*b*) Devices for simulating environments at Mach 1.4 and above, including hot shot tunnels, plasma arc tunnels, shock tubes, shock tunnels, gas tunnels and light gasguns;

(*c*) Specially designed parts and accessories therefor.

GROUP E.

TRANSPORTATION EQUIPMENT.

1416. Vessels, as follows—

(*a*) Fishing vessels, and hulls therefor, designed for speeds of 17 knots or over when in full load (design) condition;

(*b*) Hydrofoil vessels;

(*c*) Sea-going vessels including coasters and hulls therefor, designed for speeds of over 23 knots when in full load (design) condition, taking into consideration hull form (configuration) as well as power plant;

(*d*) Vessels with hulls and propulsion machinery made wholly or primarily of non-magnetic materials;

(*e*) New ships with decks and platforms specially designed or strengthened to receive weapons;

(*f*) Vessels incorporating any Munitions List items, any of the following embargoed items: 1430, 1485, 1501, 1502, 1510 (excluding all types of fish finding or whale finding equipment) or arrangements for the degaussing of the vessel.

4416. Passenger-carrying liners having at least 4 decks and whose specifications, as far as hull construction is concerned, correspond to the Conventions on the Safety of Human Life at Sea in force at the time of their construction, when designed for speeds of over 23 knots but not higher than 25 knots.

1430. Buoyant electric conducting cable suitable for sweeping magnetic mines.

1431. Gas turbine engines for marine propulsion, whether originally designed as such or adapted for such use from aero-engines.

1460. Aircraft, helicopters and aero-engines, all types, including ground and airborne equipment, not elsewhere specified, developed solely or used mainly for aircraft and helicopters.

1485. Compasses, gyroscopes, accelerometers and inertial equipment as follows—

(*a*) Gyro compasses possessing one or more of the following characteristics—

(i) Automatic correction for the effects on compass accuracy of changes in ship's speed, acceleration, or latitude.

(Manually set machanical corrective devices such as the speed-course-latitude corrector on the Sperry MK 14 MOD 1 compasses are specifically excepted);

(ii) Provision for accepting ship's data as an electrical input;

(iii) Provision for setting in corrections for current set and drift;

(iv) Utilization of accelerometer, rate gyro, rate intergrating gyro, or electrolytic levels as sensing devices;

(v) Provision for determining and electrically transmitting ship's level reference data (roll, pitch) in addition to own ship's course data;

(*b*) Integrated flight instrument systems for aircraft which include either gyro-stabilizers or automatic pilots or both;

(*c*) Gyro-astro compasses and other devices which derive either position or orientation or both by means of automatically tracking celestial bodies;

(*d*) Gyro-stabilizers used for other purposes than aircraft control, except those for stabilizing an entire surface vessel;

(*e*) Automatic pilots used for other purposes than aircraft controls except marine types for surface vessels;

(*f*) Accelerometers either with a threshold of 0.005 g or less or a linearity of less than 0.25% of output over the operating range or both, which are designed for use in inertial navigation systems or in guidance systems of all types;

(*g*) Gyros and gyro compasses, as follows—

(i) Gyros with a rated free directional drift rate (rated free procession) of less than 0.5 degree (1 Sigma or r.m.s.) per hour in a 1 g environment;

(ii) Gyro compasses which incorporate gyros embargoed by sub-item (*g*)(i) above or which, when operated in a gyro compass mode, have a compass error, before compensation, due to gyro drift of less than 1/30 of a radian ($6/\pi$ degrees or 1.918 degrees approximately) at 0 degree latitude;

(*h*) Inertial equipment either using accelerometers embargoed by sub-item (*f*) above or gyros embargoed by sub-item (*g*)(i) above or both, and systems incorporating such equipment;

(*i*) Specially designed parts, components, and test, calibration and alignment equipment for the above.

GROUP F.

ELECTRONIC EQUIPMENT INCLUDING COMMUNICATIONS AND RADAR.

1501. Communication, navigation, direction finding and radar equipment.

1502. Communication, detection or tracking equipment of a kind using ultraviolet radiation, intra-red radiation or ultrasonic waves; and specialized parts therefor.

1507. "Jamming" apparatus specially designed to jam or otherwise interfere with radio reception; and specialized parts therefor.

1510. Location apparatus underwater; apparatus for detecting or locating objects under water by magnetic or acoustic or ultrasonic methods, and specialized components of such apparatus, except—

(*a*) Marine depth sounders of a kind used solely for measuring the depth of water or the distance of submerged objects, fish or whales vertically below the apparatus;

(*b*) Specific types of horizontally operated fish or whale finding equipment.

1514. Pulse modulators capable of providing electric impulses of peak power exceeding 200 kilowatts or of a duration of less than 1/10th micro-second, or with a duty cycle in excess of 0.002; and pulse-transformer, pulse-forming equipment or delay lines being specialized parts of such modulators.

1516. Panoramic radio receivers as follows—

(*a*) Panoramic radio receivers (being receivers which search automatically a part of the radio-frequency spectrum and indicate the signals received); except ancillary equipment for commercial receivers, with which the frequency spectrum searched does not exceed either $\pm 20\%$ of the intermediate frequency of the receiver or ± 2 megaHertz;

(*b*) Specialized parts for the panoramic radio receivers embargoed by this item.

1517. Radio transmitters and components, except radio relay communications equipment, as follows—

(*a*) Transmitters or transmitter amplifiers designed to operate at output frequencies greater than 235 megaHertz, other than—

(i) Television broadcasting transmitters and amplifiers therefor operating between 470 and 960 megaHertz;

(ii) Frequency-modulated and amplitude-modulated ground communications equipment required for use in the land mobile service and operating in the 420 to 470 megaHertz band, with a power output of not more than 25 watts for mobile units and 100 watts for fixed units;

(iii) Amplitude-modulated radiotelephone equipment used for search and rescue work operating on a frequency of 243 megaHertz with a carrier power not exceeding 100 milliwatts;

(*b*) Transmitters or transmitter amplifiers designed to provide any of the following features—

(i) Any system of pulse modulation (This does not include amplitude frequency or phase modulated television or telegraphic transmitters);

(ii) Rated for operation over a range of ambient temperatures extending from below $-40°$C. to above $+55°$C.;

(iii) Designed to provide a multiplicity of alternative output frequencies controlled by a lesser number of piezo-electric crystals, except equipments in which the output frequency is selected only by manual operation either on the equipment or on a remote control unit and—

(1) those forming multiples of a common control frequency, or

(2) those in which the output frequency is a multiple of a common frequency which is not less than 1/1,000th part of the oscillator frequency and is in steps of 1 kilo-Hertz or greater;

(*c*) Components and sub-assemblies, including but not limited to intermediate-frequency and power amplifiers and their parts, modulators and modulation amplifiers, aerials, their filters and their connecting devices, control equipment placed in racks, and maintenance equipment, specially designed for transmitters covered by sub-items (*a*) and (*b*), except quartz crystals which are covered by item 1587, Group G.

1518. Telemetering and telecontrol equipment suitable for use with aircraft (piloted or pilotless), space vehicles or weapons (guided or unguided) and test equipment specially designed for such equipment.

1519. Data communication equipment employing digital transmission with digital input and output, including telegraphic and data transmission, having any of the following characteristics—

(*a*) Designed for operation at a data signalling rate in bits per second, excluding servicing and administrative channels, numerically exceeding either—

(i) 1,200; or

(ii) 65% of the channel (or sub-channel) bandwidth in Hertz;

(*b*) Employing automatic error detection and correction systems having both of the following characteristics—

(i) Re-transmission is not required for correction;

(ii) Transmission speed exceeding 300 bits per second;

(*c*) Components, accessories and sub-assemblies, specially designed for the above equipment.

1520. Radio relay communications equipment, as follows—

(*a*) Equipment employing tropospheric, ionospheric or meteoric scatter phenomena, and specialized test equipment therefor;

(*b*) Other radio relay equipment designed for use at frequencies exceeding 300 megaHertz, except equipment having none of the following characteristics—

(i) Designed for use at frequencies exceeding 470 megaHertz;

(ii) Power output exceeding 10 watts;

(iii) Signal bandwidth at the input to the modulator exceeding the limit specified in sub-item 1523(*a*);

(iv) For other than fixed service;

(*c*) Components, accessories and sub-assemblies, specially designed for the above equipment.

1521. Amplifiers, oscillators and related equipment, as follows—

(*a*) Amplifiers designed to operate at frequencies in excess of 500 megaHertz;

(*b*) Tuned amplifiers having a bandwidth which exceeds 10 megaHerts or 10% of the mean frequency, whichever is less, except those specially designed for use in community television distribution systems;

(*c*) Untuned amplifiers having a bandwidth which exceeds 10 megaHertz, but excluding those having a bandwidth up to 30 megaHertz provided the power output does not exceed 5 watts;

(*d*) Direct current amplifiers, amplifying by whatever means, having either a noise level (referred to the input circuit) of 10^{-16} watts or less or zero drift in 1 hour corresponding to a change in input power of 10^{-16} watts or less or both;

(*e*) Parametric amplifiers with a noise figure of merit of 5 decibels or less measured at a temperature of 17°C.; paramagnetic amplifiers; other amplifier or oscillator devices which amplify or oscillate by means of stimulated electromagnetic radiation (including but not limited to MASERS, LASERS and IRASERS), specially designed parts therefor; and any equipment containing such amplifiers, oscillators or devices.

1523. Single and multi-channel communications transmission equipment, including line or radio terminal, modem, multiplex, and intermediate amplifier or repeater equipment, as follows—

(*a*) Employing analogue techniques, including frequency division multiplex (FDM), designed to deliver, carry or receive frequencies higher than 150 kiloHertz into, or in, a communications system, except carrier communications terminals specially designed for power lines and operating at frequencies below 1,500 kiloHertz;

(*b*) Employing digital transmission with analogue input and output, including pulse code modulation (PCM), designed for use on communication circuits, and speciallized test equipment therefor;

(*c*) Components accessories and sub-assemblies, specially designed for the above equipment.

1526. Communications cable, not elsewhere specified.

1527. All cypher machines, cryptographic or coding devices and equipment or both, and associated equipment, usable on any transmission system (telegraphy, telephony, facsimile, video, data), that is designed to ensure the secrecy of communications and thus prevent clear reception by any one other than the intended receiver.

4529. Radio Testing Equipment.

1533. Radio spectrum analyzers (being apparatus capable of indicating the single-frequency components of multi-frequency oscillations) as follows—

(*a*) Designed to operate at frequencies over 1,000 megaHertz;

(*b*) Designed to operate at frequencies over 300 megaHertz and using interchangeable heads (i.e. R.F. tuning units) and incorporating integral sweep facilities;

(*c*) Having a display bandwidth in excess of 12 megaHertz;

(*d*) Specialized components, accessories and parts therefor.

1537. Electromagnetic waveguides and components therefor, as follows—

(*a*) Rigid and flexible waveguides and components designed for use at frequencies in excess of 12.5 gigaHertz;

(*b*) Waveguides having a bandwidth ratio greater than 1.5:1;

(*c*) Waveguide components, as follows—

(i) Directional couplers having a bandwidth ratio greater than 1.5:1 and directivity over the band of 14 decibels or more;

(ii) Rotary joints capable of transmitting more than one isolated channel or having a bandwidth greater than 5% of the centre mean frequency;

(iii) Magnetic, including gyro-magnetic, waveguide components;

(*d*) Pressurized waveguides and specialized components therefor;

(*e*) TEM mode devices, using magnetic, including gyro-magnetic properties;

(*f*) TR and anti-TR tubes and components therefor, except those designed for use in waveguides operating at a peak power not exceeding 160 kilowatts and at a frequency of 10.5 gigaHertz or less which are in normal civil use for ground or marine radar.

1541. Cathode-ray tubes, as follows—

(*a*) With a resolving power of 500 or more lines per inch (20 lines per millimetre) using the shrinking raster method of measurement;

(*b*) With writing speeds of more than 3,000 kilometres per second;

(*c*) Alpha-numeric and similar display tubes in which a symbol-mask within the tube can be scanned to display any of the symbols on any part of the phosphor.

1542. Cold cathode tubes and switches, as follows—

(*a*) Triggered spark-gaps, having an anode delay time of 15 microseconds or less and rated for a peak current of 3,000 amps or more; specially designed parts therefor; and equipment incorporating such devices;

(*b*) Cold cathode tubes, whether gas-filled or not, operating in a manner similar to a spark-gap, containing three or more electrodes and having all of the following characteristics—

(i) Rated for an anode peak voltage of 2,500 volts or more;

(ii) Rated for peak currents of 100 amps or more;

(iii) An anode delay time of 10 microseconds or less;

(iv) An envelope diameter of less than 1 inch (25.4 millimetres).

1544. Semi-conductor diodes and thyristors, except photodiodes (see item 1548), as follows—

(*a*) Diodes having a bulk material other than silicon, germanium, selenium or copper oxide;

(*b*) Silicon and germanium diodes (including mixer, detector, frequency-changing and variable capacitance diodes, and diodes used for the direct conversion of DC to RF power), designed or rated for use at input or output frequencies greater than 300 megaHertz; except—

(i) Point-contact diodes designed for use at input frequencies not exceeding 1 gigaHertz;

(ii) Voltage-variable capacitance diodes designed for tuning and automatic frequency control in entertainment-type television and radio receivers, having all of the following characteristics—

(1) a rated power dissipation of less than 0.5 watt at 25°C;

(2) a series inductance higher than 3 nanoHenries;

(3) a typical figure of merit Q of less than 800 measured at a reverse voltage of 4 volts and a frequency of 50 megaHertz;

(*c*) Silicon and germanium diodes having a rated maximum reverse recovery time of less than 30 nanoseconds;

(*d*) Tunnel diodes;

(*e*) Thyristors having a rated turn-off time of less than 10 microseconds.

1545. Transistors and specialized parts therefor, except photo-transistors (see item 1548), as follows—

(*a*) Of any type using any semi-conductor material having 4 or more active junctions within any single block of semi-conductor material;

(*b*) Of any type using a bulk semi-conductor material other than germanium or silicon;

(*c*) Using germanium as the bulk semi-conductor material and having any of the following characteristics—

(i) An average fT of 40 to 240 megaHertz and designed to have a maximum collector dissipation greater than 150 milliwatts;

(ii) An average fT greater than 240 megaHertz;

(*d*) Using silicon as the bulk semi-conductor material and having any of the following characteristics—

(i) An average fT of up to 500 kiloHertz and designed to have a maximum collector dissipation greater than 5 watts;

(ii) An average fT from over 500 kiloHertz to 3 megaHertz and designed to have a maximum collector dissipation greater than 500 milliwatts;

(iii) An average fT from over 3 megaHertz to 20 megaHertz and designed to have a maximum collector dissipation greater than 250 milliwatts;

(iv) An average fT greater than 20 megaHertz;

(v) Majority carrier devices, including but not limited to field effect transistors and metal oxide semi-conductor transistors;

(vi) A modulus of the current gain in the common emitter configuration of 10 or more for collector currents of 100 microamperes or less.

1546. Dendritic produced forms of any semi-conductor material, or combinations thereof, suitable for use in diodes or transistors.

1548. Photo cells, as follows—

(*a*) Photoelectric cells, photo-conductive cells (including photo-transistors and similar cells) with a peak sensitivity at a wavelength longer than 12,000 Angstrom units or shorter than 3,000 Angstrom units;

(*b*) Photo-transistors (photo-conductive cells including photo-diodes) with a response time constant of 1 millisecond or less measured at the operating temperature of the cell for which the time constant reaches a minimum.

1549. Photomultiplier tubes as follows—

(*a*) For which the maximum sensitivity occurs at wavelengths longer than 7,500 Angstrom units or shorter than 3,000 Angstrom units; or

(*b*) Having an anode pulse rise time of less than 1 nanosecond.

1550. Thermal detecting cells, i.e. bolometers and thermocoupled detectors, radiant energy types only, with a response time constant of less than 10 milliseconds measured at the operating temperature of the cell for which the time constant reaches a minimum.

1553. Flash-discharge type X-ray systems, including tubes, except those systems or tubes having all of the following specifications—

(*a*) Peak power of 500 megawatts or less;

(*b*) Output voltage of 500 kilovolts or less;

(*c*) Pulse width of 0.2 microsecond or more.

1555. Image intensifiers, image converters and specialized components, electronic storage tubes including memory transformers of radar pictures, and ruggedized vidicon-type tubes (except

commercial standard television camera tubes and commercial standard X-ray amplifier tubes).

1556. Non-flexible fused fibre optic plates or bundles, having all the following characteristics—

(*a*) A fibre pitch (centre-to-centre spacing) of less than 15 microns;

(*b*) A light-absorbing medium surrounding each fibre, or interstitially placed between fibres;

(*c*) A diameter greater than $\frac{1}{2}$ inch (13 mm.).

1558. Valves (tubes) electronic, and specialized parts, as follows—

(*a*) (i) Valves rated for continuous-wave operation above 1,000 megaHertz at the maximum rated anode dissipation;

(ii) Valves rated for pulse operation above 300 megaHertz at the maximum rated anode dissipation;

(iii) Valves rated for continuous-wave operation over the frequency range 300 to 1,000 megaHertz and for which, under any conditions of cooling, the product of the maximum rated anode dissipation (expressed in watts) and the square of the maximum frequency (expressed in megaHertz) at the maximum rated anode dissipation is greater than 10^8, or where applied to external anode tubes rated only without a radiator, and rated only for free air circulation, the product is greater than 5×10^6;

(iv) Valves constructed with ceramic envelopes and rated for operation above 300 megaHertz;

(*b*) Valves in which the velocity of the electrons is utilized as one of the functional parameters, including but not limited to klystrons, travelling wave tubes and magnetrons, except fixed frequency pulsed magnetrons designed to operate at frequencies in the range 9.3 to 9.5 gigaHertz with a maximum peak power output not exceeding 25 kilowatts;

(*c*) Indirectly heated valves of a kind that can be passed through a circular hole of 7.2 mm. in diameter;

(*d*) Valves designed to withstand an acceleration of short duration (shock) greater than 1,000 g;

(*e*) Valves designed for operation in ambient temperatures exceeding 200°C;

(*f*) Vacuum tubes specially designed for use as pulse modulators for radar or for similar applications, having a peak anode voltage rating of 100 kilovolts or more; or rated for a peak pulse power of 2 megawatts or more.

1559. Hydrogen thyratrons, as follows—

(*a*) Rated for a peak pulse power output of 2 megawatts or more; or

(*b*) Of metal-ceramic construction.

1560. Components and parts used as inductive and capacitive elements in electronic circuits, designed for or capable of reliable performance in relation to their electrical and mechanical characteristics and maintaining their design service lifetime while operating—

(*a*) Over the whole range of ambient temperatures from below −45°C. to above +100°C; or

(*b*) At ambient temperatures of 200°C. or higher.

1561. Materials specially designed and manufactured for use as absorbers of electromagnetic waves having frequencies greater than 2×10^8 Hertz and less than 3×10^{12} Hertz.

1562. Tantalum and niobium electrolytic capacitors, as follows—

(*a*) All types designed to operate permanently at temperatures exceeding 85°C.;

(*b*) Sintered electrolytic capacitors, except those having a casing made of epoxy resin or sealed with epoxy resin;

(*c*) Electrolytic capacitors constructed with foils.

1564. Electronic components, as follows—

(*a*) Assemblies and sub-assemblies constituting one or more functional circuits with a component density greater than 75 parts per cubic inch (4.575 parts per cubic cm.);

(*b*) Modular insulator panels (including wafers) mounting single or multiple electronic elements and specialized parts therefor;

(*c*) Integrated circuits, i.e. assemblies and sub-assemblies containing one or more functional circuits in which there are both component and interconnections formed by the diffusion or deposition of materials into or on a common substrate.

GROUP G.

SCIENTIFIC INSTRUMENTS AND APPARATUS, SERVOMECHANISMS AND PHOTOGRAPHIC EQUIPMENT.

1565. Electronic computers and related equipment, as follows—

(*a*) Analogue computers with one or more of the following characteristics—

(i) Rated errors less than—

(1) Summers, inverters and integrators—

(A) Static:	0.02%
(B) Total at 1 kiloHertz:	0.15%

(2) Multipliers—

(A) Static:	0.1%
(B) Total at 1 kiloHertz:	0.25%

(3) Fixed function generators: log x and sine/cosine—

Static:	0.1%

(ii) More than 75 operational amplifiers;

(iii) More than four integrator time scales switchable during one programme;

(*b*) Analogue computers designed or modified for use in airborne vehicles, missiles or space vehicles and rated for continuous operation at temperatures from below −45°C. to above +55°C; and equipment or systems incorporating such computers;

(*c*) Other analogue computers capable of accepting, processing and putting out data in the form of one or more continuous variables and capable of incorporating a total of at least 20 summers, integrators, multipliers or function generators with facilities for readily varying the interconnection of these components;

(*d*) Digital computers with one or more of the following characteristics—

(i) The Central Processing Unit (CPU) implements floating point operations by hardware;

(ii) The sum of either the "I/O bus rate" or the "total effective bit transfer rate", whichever is less, and the "CPU bus rate" exceeds 10.8 million bits per second;

(iii) The internal memory has a total connected capacity (excluding parity, word marker and flag bits) of more than 0.8 million bits;

(iv) The computer is equipped with peripheral memory devices as follows—

(1) More than 12;

(2) The "total effective bit transfer rate" (excluding data channels not equipped with peripheral memory units) exceeds 0.7 million bits per second;

(3) Any magnetic tape transport with—

(A) More than 800 bits per inch per track;

(B) More than 75 inches (197 cm.) per second tape speed;

(C) More than 9 tracks per ½ inch (12.7 mm.) tape width; or

(D) More than ½ inch (12.7 mm.) tape width;

(4) For peripheral memory devices other than magnetic tape transports—

(A) Total connected "net capacity" exceeds 3 million bits;

(B) "Total number of accesses" exceeds 120 per second;

(v) Computers with cathode-ray tube displays as follows—

(1) Used to display alpha-numeric and similar data or information, excluding those displays for which circuitry and character-generation devices external to the tube limit displays to alpha-numeric characters in fixed formats or to graphs composed only of the same basic elements as used for alpha-numeric character composition (this exclusion is limited to graphic displays for which the sequence of symbols and basic elements of symbols are fixed by the format and character generators

in the unit and cannot be generated arbitrarily by the computer);

(2) With light gun or other graphic input devices, excluding those which are parts of displays for which circuitry and character-generation devices external to the tube limit displays to alpha-numeric characters in fixed formats or to graphs composed only of the same basic elements as used for alpha-numeric character composition;

(*e*) Digital computers and digital differential analyzers (incremental computers) designed or modified for use in airborne vehicles, missiles or space vehicles and rated for continuous operation at temperatures from below −45°C. to above +55°C.; and equipment or systems incorporating such computers or analyzers;

(*f*) Other digital computers operated by one or more common control units and capable of all of the following—

(i) Accepting, storing, processing and producing an output in numerical or alphabetical form;

(ii) Storing more than 512 characters, whether numerical or alphabetical or both, or having an internal memory or more than 2048 bits;

(iii) Performing a stored sequence of operations that are modifiable by means other than a physical change in circuitry; and

(iv) Selecting a sequence from a plurality of stored operations based upon data or an internally computed result;

(*g*) Computers capable of operating in both analogue and digital modes and related equipment as follows—

(i) Equipment whose analogue portion meets the conditions of sub-item (*c*) and whose digital portion meets the conditions of sub-item (*f*) and which also provides facilities for processing in the digital section numeric data from the analogue section or vice versa;

(ii) Equipment for interconnecting the analogue and digital portions of computers as defined in sub-item (*g*)(*i*);

(iii) Digital or analogue computers containing interconnecting equipment as defined in sub-item (*g*)(*ii*);

(*h*) Specialized parts, components, peripherals, sub-assemblies, accessories, and spare parts for the above, including those which are described in items 1572 and 1588.

1568. Equipment, as follows—

(*a*) All classes of devices, regardless of other characteristics, identified in sub-items (*b*), (*c*), (*d*), (*e*), (*f*), (*g*) and (*l*) below, which are designed to operate below −55°C. or above +125°C.;

(*b*) Synchros and resolvers (and special instruments rated to have the same characteristics as synchros and resolvers in (i) and (ii) below, such as Microsyns, Synchro-Tels and

Inductosyns), possessing any of the following characteristics—

(i) A rated electrical error of 10 minutes or less or of 0.25% or less of maximum output voltage;

(ii) A rated dynamic accuracy for receiver types of 1° or less, except that for units of size 30 (3 inches in diameter) or larger a rated dynamic accuracy of less than 1°;

(iii) Multi-speed from single shaft types;

(iv) Employing solid state Hall effect;

(v) Designed for gimbal mounting;

(*c*) Amplifiers, electronic or magnetic, specially designed for use with resolvers, the following—

(i) Isolation types having a variation of gain constant (linearity of gain) of 0.2% or better;

(ii) Summing types having a variation of gain constant (linearity of gain) or an accuracy of summation of 0.2% or better;

(iii) Employing solid state Hall effect;

(*d*) Induction potentiometers (including function generators and linear synchros), linear and non-linear, possessing any of the following characteristics—

(i) A rated conformity of 0.5% or less, or of 18 minutes or less;

(ii) Employing solid state Hall effect;

(iii) Designed for gimbal mounting;

(*e*) Induction rate (tachometer) generators, synchronous and asynchronous, as follows—

(i) Employing solid state Hall effect;

(ii) With a housing diameter of 2 inches (50 mm.) and smaller and a length (without shaft-ends) of 4 inches (100 mm.) and smaller or with a diameter-to-length ratio greater than 2:1, having one or more of the following characteristics—

(1) with a rated linearity of 0.5% or less;

(2) all temperature-compensated or temperature-corrected types;

(*f*) Servo-motors (gear-head or plain) as follows—

(i) Designed to operate from power sources of more than 300 Hertz except those designed to operate from power sources of over 300 Hertz up to and not exceeding 400 Hertz with a temperature range of from −25°C. to +100°C.;

(ii) Designed to have a torque-to-inertia ratio of 10,000 radians per second per second or greater;

(iii) Incorporating special features to secure internal damping;

(iv) Employing solid state Hall effect;

(*g*) Potentiometers (and special instruments rated to have the same characteristics as potentiometers in (i) and (ii) below, such as Vernistats), as follows—

(i) Linear potentiometers having a constant resolution and a rated linearity of 0.1% or less;

(ii) Non-linear potentiometers having a variable resolution and a rated conformity of—

(1) 1% or less when the resolution is inferior to that obtained with a linear potentiometer of the same type and of the same track length; or

(2) 0.5% or less when the resolution is better than or equal to that obtained with a linear potentiometer of the same type and of the same track length;

(iii) Designed for gimbal mounting;

(*h*) Direct current and alternating current torquers, i.e. torque motors specially designed for gyros and stabilized platforms;

(*i*) Electro-optical devices designed to monitor relative rotation of remote surfaces;

(*j*) Synchronous motors, as follows—

(i) Of size 30 (3 inches (76.2 mm.) in diameter) and smaller and having synchronous speeds in excess of 3,600 revolutions per minute;

(ii) Designed to operate from power sources of more than 400 Hertz;

(iii) Designed to operate below −25°C. or above +100°C.;

(*k*) Ball-and-disc or cylinder-and-ball mechanical integraters; and mechanical ball resolvers;

(*l*) Analogue-to-digital and digital-to-analogue coverters, as follows—

(i) Electrical-input types possessing—

(1) A peak conversion rate capability in excess of 50,000 complete conversions per second;

(2) An accuracy in exceeds of 1 part in more than 10,000 of full scale; or

(3) A figure of merit of 10^7 or more (derived from the number of complete conversions per second divided by the accuracy);

(ii) Mechanical input types (including but not limited to shaft-position encoders and linear displacement encoders, but excluding complex servo-follower systems), the following—

(1) Rotary types having an accuracy or maximum incremental accuracy better than ± 1 part in 10,000 of full scale;

(2) Linear displacement types having an accuracy better than ± 5 microns;

(iii) Employing solid state Hall effect;

(*m*) Semi-conductor Hall field probes, as follows—

(i) Made of indium-arsenide-phosphide (In As P);

(ii) Coated with ceramic or ferritic materials (e.g. special field probes such as tangential field probes, multipliers, modulators, recorder probes etc.);

(iii) With an open circuit sensitivity greater than—

$$\frac{0.12\ V}{A \times \text{Kilogauss}} \quad (V = \text{Volt}, A = \text{Ampere});$$

(*n*) Specially designed parts, components, sub-assemblies and test equipment (including adapters, couplers, etc.) for the above.

1570. Thermoelectric materials and devices, as follows—

(*a*) Thermoelectric materials with a maximum product of the figure of merit (Z) and the temperature (T in °K) in excess of 0.75;

(*b*) Junctions and combinations of junctions using any of the materials in sub-item (*a*);

(*c*) Heat absorbing or electrical power generating devices or both containing any of the junctions in sub-item (*b*);

(*d*) Other power generating devices which generate in excess of 10 watts per pound or of 500 watts per cubic foot of the devices' basic thermoelectric components;

(*e*) Specialized parts, components and sub-assemblies, not elsewhere specified, for the above devices.

1571. Magnetometers having any of the following characteristics, and specialized parts therefor—

(*a*) A sensitivity below 1.0 gamma (10^{-5} oersteds);

(*b*) A response time of less than 2 microseconds;

(*c*) Fluxgate or paramagnetic types.

1572. Recording or reproducing equipment, as follows—

(*a*) Using magnetic techniques, except those specifically designed for voice or music;

(*b*) Using electron beam operating in a vacuum, or laser-produced light beams (see also sub-item 1521(*e*), Group F) that produce patterns or images directly on the recording surface or both, and specialized equipment for image development;

(*c*) Graphic instruments capable of continuous direct recording of sinusoidal waves at frequencies exceeding 20 kiloHertz;

(*d*) Specialized parts, components and recording media for the above.

1576. Centrifugal testing apparatus or equipment possessing any of the following characteristics—

(*a*) Driven by a motor or motors having a total rated horse-power greater than 400 horse-power;

(*b*) Capable of carrying a payload of 250 lb. (118 kg.) or more;

(*c*) Capable of exerting a centrifugal acceleration of 8 or more "g" on a payload of 200 lb. (90.7 kg.) or more.

1579. Ion microscopes having a resolving power better than 10 Angstrom units.

1584. Oscilloscopes and specialized parts therefor, as follows—

(*a*) Cathode ray escilloscopes possessing any of the following characteristics—

(i) An amplifier bandwidth greater than 30 megaHertz (defined as the band of frequencies over which the deflection on the cathode ray tube does not fall below 70.7% of that at maximum point measured with a constant input voltage to the amplifier);

(ii) Containing or designed for the use of—

(1) cathode ray memory tubes;

(2) cathode ray tubes with travelling wave or distributed deflection structure or incorporating other techniques to minimize mismatch of fast phenomena signals to the deflection structure.

(iii) Ruggedized to meet a military specification;

(iv) Rated for operation over an ambient temperature range of from below −25° C. to above +55° C.;

(v) A rise time of less than 12 nanoseconds.

(*b*) Oscilloscope plug-in units and external amplifiers and pre-amplifiers which have a bandwidth greater than that defined in sub-item (*a*)(i) above.

(*c*) Electronic devices for stroboscopic analysis of a signal (i.e. sampling devices), whether sub-assemblies or separate units, designed to be used in conjunction with an oscilloscope to permit the analysis of recurring phenomena, and which increase the capabilities of an oscilloscope to permit measurements within the limits of equipment embargoed by sub-item (*a*)(i) above.

1585. Photographic equipment, as follows—

(*a*) High speed cinema recording cameras, as follows—

(i) Cameras in which the film is continuously advanced throughout the recording period, and which are capable of recording at rates exceeding 3,000 frames per second for the full framing height of standard 35 mm. wide photographic film or proportionately higher rates for lesser frame heights, or proportionately lower rates for greater frame heights;

(ii) Cameras in which the film moves intermittently during the recording period, being automatically locked in place for each frame, and which are capable of recording at the following rates—

(1) exceeding 250 frames per second for 16 mm. film;

(2) exceeding 130 frames per second for 35 mm. film;

(3) exceeding 50 frames per second for 70 mm. film at full frame heights;

(*b*) High speed cameras in which the film does not move, and which are capable of recording at rates exceeding 250,000 frames per second for the full framing height of standard 35 mm. wide photographic film, or proportionately higher rates for lesser frame heights, or proportionately lower rates for greater frame heights;

(*c*) Cameras incorporating image converters and specially designed controls, parts and accessories therefor;

(*d*) Photographic systems specially designed for use in space vehicles.

(*e*) Streak cameras having writing speeds of 8 mm./microsecond and above capable of recording events which are not initiated by the camera mechanism.

(*f*) Cameras having shutter speeds of less than 1 microsecond per operation, and specialized parts and accessories therefor;

(*g*) High speed film, as follows—

(i) Having an intensity dynamic range of 1,000,000 : 1 or more; or

(ii) Having a speed of ASA 10,000 (or its equivalent) or better.

1587. Quartz crystals and assemblies thereof in any stage of fabrication (i.e. worked, semi-finished or mounted), as follows—

(*a*) For use as filter elements—

(i) Specially designed crystals; or

(ii) Assemblies of crystals;

(*b*) For use as oscillator elements—

(i) Designed for operation over a temperature range wider than 180 divisions in Fahrenheit/100 divisions in Celsius and capable of operating above 185° F./85° C.;

(ii) Designed for a frequency stability of plus or minus 0.003% or better over the rated temperature range;

(iii) Mounted in metal holders sealed with thermocompression welding; or

(iv) Capable, when mounted, of being passed through a circular hole with a diameter of 0.42 inches (10.7 mm.).

1588. Materials composed of crystals having spinel, hexagonal or garnet crystal structures; thin film devices; assemblies of the foregoing; and devices containing them, as follows—

(*a*) Monocrystals of ferrites and garnets, synthetic only;

(*b*) Single aperture forms possessing any of the following characteristics—

(i) Switching speed of 0.5 microsecond or faster at the minimum field strength required for switching at 104° F. (40° C.);

(ii) A maximum dimension less than 45 mils (1.14 mm.);

(*c*) Multi-aperture forms with fewer than 10 apertures possessing any of the following characteristics—

(i) Switching speed of 1 microsecond or faster at the minimum field strength required for switching at 104° F. (40° C.);

(ii) A maximum dimension less than 100 mils (2.54 mm.);

(*d*) Multi-aperture forms having 10 or more apertures;

(*e*) Thin film memory storage or switching devices;

(*f*) Electrical filters in which the coupling element makes use of the electromechanical properties of ferrites;

(*g*) Materials suitable for application in electromagnetic devices making use of the gyromagnetic resonance phenomenon.

1595 Gravity meters (gravimeters) and specialized parts therefor, designed or modified for airborne or marine use.

GROUP H.

METAL, MINERALS AND THEIR MANUFACTURES.

In this Group—

Raw materials cover all materials from which the metal can be usefully extracted, i.e. ores, concentrates, matte, regulus, residues and dross (ashes); and

Unless provision to the contrary is made in particular items of the definition, the words metal and alloys cover all crude and semi-fabricated forms as follows—

Crude forms:

Anodes, balls, bars (including notched bars and wire bars), billets, blocks, blooms, brickets, cakes, cathodes, crystals, cubes, dice, grains, granules, ingots, lumps, pellets, pigs, powder, rondelles, shot, slabs, slugs, sponge, sticks.

Semi-fabricated forms (whether or not coated, plated, drilled or punched):

(*a*) Wrought or worked materials fabricated by rolling, drawing, extruding, forging, impact extruding, pressing, graining, atomizing and grinding, i.e. angles, channels, circles, discs, dust, flakes, foil and leaf, forgings, plates, powder, pressings and stampings, ribbons, rings, rods (including bare welding rods, wire rods and rolled wire), sections, shapes, sheets, strip, pipe and tubes (including tube rounds, squares and hollows), drawn or extruded wire.

(*b*) Cast material produced by casting in sand, die, metal, plaster or other types of moulds, including high pressure castings, sintered forms, and forms made by powder metallurgy.

1601. Anti-friction bearings, as follows—

(*a*) All ball and cylindrical roller bearings having an inner bore diameter of 10 millimeters or less and tolerances of

ABEC 5, RBEC 5 (or equivalents) or better and either or both of the following characteristics—

(i) Made of special materials, i.e. with rings, balls or rollers made from any steel alloy or other material except the following—

Low-carbon steel; SAE-52100 high carbon chromium steel; SAE-4615 nickel molybdenum steel; or equivalents (partial illustrative examples of special materials for this purpose are: high-speed tool steels; stainless steel; monels; beryllium);

(ii) Manufactured for use at normal operating temperatures over 302° F. (150° C.) either by use of special materials or by special heat treatment;

(*b*) All ball and cylindrical roller bearings (exclusive of separable ball bearings and thrust ball bearings) having an inner bore diameter exceeding 10 millimetres and having tolerances of ABEC 7, RBEC 7 (or equivalents) or better and either or both of the characteristics in sub-item (*a*)(i) or (*a*)(ii);

(*c*) Bearing parts as follows—

Outer rings, inner rings, retainers, balls, rollers and subassemblies usable only for bearings covered by sub-items (*a*) and (*b*).

1631. Magnetic metals of all types and of whatever form, possessing one or more of the following characteristics—

(*a*) Grain oriented sheet or strip of a thickness of 0.004 inches (0.1 mm.) or less;

(*b*) Initial permeability 70,000 gauss-oersteds (0.0875 Henry/m) or over;

(*c*) Remanence 98.5% or over of maximum flux for materials having magnetic permeability;

(*d*) A composition capable of an energy product—

(i) Exceeding 8 times 10^6 gauss-oersteds (63,700 joules/cu.m.); or

(ii) 4.85 times 10^6 gauss-oersteds (38,600 joules/cu.m.) or greater and having a coercive force of 1,800 oersteds (143,200 amperes/m) or greater.

1635. Iron and steel, alloyed as follows—

(*a*) Containing 10% or more molybdenum (but more than 5% molybdenum in any alloys containing more than 14% chromium);

(*b*) Containing 1.5% or more of either niobium or tantalum or both;

(*c*) Nickel bearing stabilized steels, not elsewhere specified having a total of 38% or more of alloying elements except such steels containing less than 0.4% titanium or less than 0.8% niobium-tantalum;

(*d*) Precipitation hardening steels containing 4% or more nickel.

1648. Cobalt based alloys (i.e. containing a higher percentage by weight of cobalt than of any other element), containing 5% or more of tantalum.

4648. Cobalt bearing alloys (other than those covered by items 1631, 1635 and 1648) and scrap forms thereof, containing—

(*a*) 50% or more cobalt; or

(*b*) 19% or more cobalt and 14% or more chromium.

1649. Niobium (columbium) as follows—

(*a*) Raw materials including ores, residue, concentrates, matte, regulus and dross;

(*b*) Ferro-niobium and ferro-niobium-tantalum;

(*c*) Metal and niobium-based alloys containing 50% or more niobium or 60% or more niobium-tantalum in combination;

(*d*) Scrap forms of the metal and alloys covered under sub-item (*c*).

1654. Magnesium-based alloys containing 0.4% or more of zirconium, or 1% or more of rare earth metals (cerium mischmetal), and scrap forms thereof.

1658. Molybdenum metal with a purity of more than 99.5%, and alloys containing 95% or more of molybdenum, except molybdenum metal wire or molybdenum alloy wire.

4661. Nickel alloys, as follows—

(*a*) Nickel-chromium alloys containing at least 35% nickel, at least 12% chromium and at least 1.5% total titanium plus aluminium plus columbium, either separately or combined;

(*b*) Nickel-based alloys, not elsewhere specified.

1668. Tungsten metal, as follows—

(*a*) Pressed-sintered crude and semi-fabricated forms weighing more than 20 lb. (9 kg.) except wire and sheet;

(*b*) Pressed-sintered porous crude and semi-fabricated forms weighing more than 15 lb. (6.8 kg.) before infiltration, or more than 20 lb. (9 kg.) after infiltration.

1670. Tantalum, as follows—

(*a*) Metal and tantalum-based alloys containing 60% or more of tantalum;

(*b*) Scrap forms of the metal and alloys covered by sub-item (*a*).

1671. Titanium, as follows—

(*a*) Metal and titanium-based alloys containing 70% or more titanium;

(*b*) Scrap forms of the metal and alloys covered under sub-item (*a*).

1673. Artificial graphite having an apparent relative density of 1.90 or greater when compared with water at 60° F. (15.5° C.).

GROUP I.

CHEMICALS, METALLOIDS AND PETROLEUM PRODUCTS.

1701. Lead azide, sodium azide and primary explosives or priming compositions (mixtures) containing either azides or azide compounds or complexes or both (for example, ortho-fluorophenyl azide, silver chlorazide, cuprammonium azide).

4701. Lead dinitroresorcinate, barium styphnate, mercury fulminate, lead styphnate, lead thiocyanate, tetrazene and diazodinitrophenol; primary explosives or priming compositions (mixtures) containing one or more of these chemicals.

1702. Hydraulic fluids which are or which contain as the principal ingredients petroleum (mineral) oils and which have all of the following characteristics—

(*a*) A pour point of −30° F. (−34° C.) or lower;

(*b*) A viscosity index of 75 or greater; and

(*c*) Are thermally stable at +700° F. (+371° C.).

1715. Boron, as follows—

(*a*) Boron element, boron compounds and mixtures in which the boron-10 isotope comprises more than 20% of the total boron content;

(*b*) Boron element (metal) all forms;

(*c*) Boron compounds and mixtures (except pharmaceutical specialities packaged for retail sale), as follows—

(i) Boron trifluoride and its complexes;

(ii) Boron carbide having a boron content of 74% or more by weight, boron hydrides and boron nitrides;

(iii) Alloys, compounds and mixtures containing 5% or more of boron, free or combined.

4715. Boron trichloride and its complexes.

1721. Diethylene triamine of a purity of 96% or higher.

1746. Polymeric substances and manufactures thereof, as follows—

(*a*) Polyimides;

(*b*) Polybenzimidazoles;

(*c*) Polyimidazopyrrolones;

(*d*) Aromatic polyamides;

(*e*) Polyparaxylylenes.

1754. Fluoro carbon compounds and manufactures, as follows—

(*a*) Monomers, homopolymers and co-polymers as follows—

(i) Polytetrafluoroethylene;

(ii) Oily and waxy modifications of polychlorotrifluoroethylene;

(iii) Polyvinylidenefluoride;

(iv) Co-polymer of tetrafluoroethylene and hexafluoropropylene;

(v) Co-polymer of tetrafluoroethylene and chlorotrifluoroethylene;

(vi) Co-polymer of chlorotrifluoroethylene and vinylidenefluoride;

(vii) Co-polymer of hexafluoropropylene and vinylidenefluoride;

(viii) Polybromotrifluoroethylene;

(ix) Co-polymer of bromotrifluoroethylene and chlorotrifluoroethylene;

(x) Dibromotetrafluoroethane;

(*b*) Manufactures made wholly of the materials in (*a*) above;

(*c*) Electric wire and cable coated with or insulated with any of the materials in (*a*) above.

1755. Silicons fluids and greases, as follows—

(*a*) Fluorinated silicone fluids and chlorinated silicone fluids;

(*b*) Silicone lubricating greases capable of operating at temperatures of 356°F. (180°C.) or higher and having a drop point (method of test being ASTM or ITP) of 428°F. (220°C.) or higher.

1757. Compounds and metallic materials, as follows—

(*a*) Silicon of a purity of 99.99% or more, and all monocrystalline silicon;

(*b*) Monocrystalline gallium compounds in any form;

(*c*) Monocrystalline indium compounds in any form.

1760. Compounds of tantalum, niobium (columbium) and tantalum-niobium, excluding compounds containing less than 20% of tantalum or niobium.

1762. Aluminium hydride.

1763. Fibrous and filamentary materials which may be used in composite structures or laminates and manufactures thereof, as follows—

(*a*) Having both of the following characteristics—

(i) Specific modulus greater than 1.25×10^8;

(ii) Specific tensile strength greater than 3×10^6;

(*b*) Having both of the following characteristics—

(i) Specific modulus greater than 1×10^8;

(ii) Melting or sublimation point higher than 3,000°F. (1,649°C.) in an inert environment; except carbon fibres having a specific modulus of less than 2×10^8 and a specific tensile strength of less than 1×10^6;

(*c*) Composite structures and laminates fabricated, by using equipment covered by item 1357, Group D, from materials covered by sub-items (*a*) and (*b*).

1770. Any liquid fuel, including petroleum products, having a gross caloriffic value of not less than 13,000 calories/grammes (23,400 B.Th.U/lb) which contains high energy components or compounds.

1781. Synthetic lubricating oils and greases which contain as the principal ingredient—

(*a*) Esters of saturated aliphatic monohydric alcohols containing more than six carbon atoms with adipic or azelaic or sebacic acids;

(*b*) Esters of trimethylol propane or trimethylol ethane or pentaerythritol with saturated monobasic acids containing more than six carbon atoms;

(*c*) All fluoro-alcohol esters and perfluoro-alkyl ethers;

(*d*) All polyphenyl ethers containing more than 3 phenyl groups.

GROUP J.

SYNTHETIC RUBBER AND SYNTHETIC FILM.

1801. Synthetic rubber, as follows—

(*a*) Alkyl polysulphide liquid polymers;

(*b*) Fluorinated silicone rubber and other fluorinated elastomeric material and such organic intermediates for their production as contain 10% or more of combined fluorine.

(*c*) Polymeric products of butadiene, as follows—

(i) Carboxyl terminated polybutadiene; hydroxyl terminated polybutadiene; thiol terminated polybutadiene; and cyclized 1,2-polybutadiene;

(ii) Mouldable copolymers of butadiene and acrylic acid;

(iii) Mouldable terpolymers of butadiene, acrylonitrile and acrylic acid or any of the homologues of acrylic acid.

(*d*) Carboxyl terminated polyisoprene and polyisobutylene.

1920. Synthetic film for dielectric use, of thickness not exceeding 0.001 inch (0.0254 mm.), capable of being used for the manufacture of capacitors covered by item 1560, Group F, except—

(*a*) Unmetallized polypropylene film; and

(*b*) Utensilized and unmetallized polyethylene terephthalate film, of thickness not less than 0.00035 inch (0.009 mm.).".

E. L. Lee

Director of Commerce and Industry ~~(Acting)~~

15th December 1971.

Explanatory Note.

(This Note is not part of the order, but is intended to indicate its general purport).

This order replaces the Schedule to the principal regulations with a new Schedule which contains a revised list of strategic commodities.

進出口（戰畧物品）規例（即香港法例第五十章）
一九七一年進出口（戰畧物品）（修訂附表）令

註　釋

（本文並非該法令之任何部份，而祇係以簡述該法令之大意爲目的）。

本法令將原有規例內附附表撤銷而代之以一項載有戰畧物品訂正名單之新訂附表。

WORKMEN'S COMPENSATION ORDINANCE.

(Chapter 282).

WORKMEN'S COMPENSATION (RULES OF COURT) (AMENDMENT) RULES 1971.

In exercise of the powers conferred by section 50 of the Workmen's Compensation Ordinance, the Chief Justice has made the following rules—

Citation.

1. These rules may be cited as the Workmen's Compensation (Rules of Court) (Amendment) Rules 1971.

Addition of new rule 3A. (Cap. 282, sub. leg.)

2. The principal rules are amended by adding after rule 3 the following new rule—

"Applications under part IIIA of the Ordinance.

3A. For the purposes of an application to the court under Part IIIA of the Ordinance, these rules shall apply, so far as is applicable, as if an employer's liability to pay for the cost of supplying and fitting a prosthesis or surgical appliance were a liability to pay compensation in accordance with the Ordinance.".

Dated this 22nd day of December 1971.

Chief Justice.

Explanatory Note.

(This Note is not part of the rules, but is intended to indicate their general purport).

These rules, by adding a new rule 3A to the principal rules, enable the principal rules to be applied in respect of an application under Part IIIA of the Ordinance.

職工賠償條例（即香港法例第二八二章）
一九七一年職工賠償（法院規則）（修訂）規則

註　釋

（本文並非該規則之任何部份，而祇係以簡述該規則之大意爲目的）。

本規則在原有規則內加插新訂規則第三甲款，藉使原有規則適用於凡根據條例第三甲部所提出之申請。

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MA PO PING ADDICTION TREATMENT CENTRE ORDER 1972.

CORRIGENDUM.

It is hereby notified that the Ma Po Ping Addiction Treatment Centre Order 1972, published as Legal Notice No. 167 of 1971, is corrected—

(*a*) in the heading, by substituting "ORDER 1971." for "ORDER 1972."; and

(*b*) in paragraph 1, by substituting "Order 1971" for "Order 1972".

PRISONS (DISCONTINUANCE OF TONG FUK PRISON) ORDER 1972.

CORRIGENDUM.

It is hereby notified that the Prisons (Discontinuance of Tong Fuk Prison) Order 1972, published as Legal Notice No. 168 of 1971, is corrected—

(*a*) in the heading, by substituting "ORDER 1971." for "ORDER 1972."; and

(*b*) in paragraph 1, by substituting "Order 1971" for "Order 1972".