

the Transport of Dangerous Goods (C.I.M) articles 3 and 4 in Annex I RID, provided Governments are satisfied that such equipment will be used only by the railway authorities of current C.I.M. members, or by Government-accredited testing facilities in those countries, for the testing of explosives to transport safety standards, as follows:

- a. Equipment for determining ignition or deflagration temperatures;
  - b. Equipment for steel-shell tests;
  - c. Drop hammers not exceeding 20 kg in mass for determining the sensitivity of explosives to shock;
  - d. Equipment for determining the friction sensitivity of explosives when exposed to charges not exceeding 36 kg in mass.
5. Governments may permit, as administrative exceptions, the shipment of hand operated equipment for reloading sporting or hunting cartridges.

### **2020. Cryogenic and "superconductive" equipment, as follows, and specially designed components and accessories therefor:**

2020. a. Equipment specially designed or configured to be installed in a vehicle for military ground, marine, airborne or space applications, capable of operating while in motion and of producing or maintaining temperatures below 103 K (-170°C);

#### **NOTE:**

Sub-item a. includes mobile systems incorporating or employing accessories or components manufactured from non-metallic or non-electrical conductive materials, such as plastics or epoxy-impregnated materials.

- b. "Superconductive" electrical equipment (rotating machinery and transformers) specially designed or configured to be installed in a vehicle for military ground, marine, airborne or space applications and capable of operating while in motion.

#### **NOTE:**

Sub-item b. does not embargo direct-current hybrid homopolar generators that have single-pole normal metal armatures which rotate in a magnetic field produced by superconducting windings, provided those windings are the only superconducting component in the generator.

### **2023. Directed energy weapon systems (DEW), related or countermeasure equipment and test models, as follows, and specially designed components therefor:**

2023. a. "Laser" systems specially designed for destruction or effecting mission-abort of a target;
- b. Particle beam systems capable of destruction or effecting mission-abort of a target;
- c. High power radio-frequency (RF) systems capable of destruction or effecting mission-abort of a target;
- d. Equipment specially designed for the detection or identification of, or defence against, systems embargoed by a., b. or c.;
- e. Physical test models and related test results for the systems, equipment and components embargoed by this Item.

#### **NOTES**

1. Directed energy weapon systems embargoed by this Item include systems whose capability is derived from the controlled application of:
  - a. "Lasers" of sufficient continuous wave or pulsed power to effect destruction similar to the manner of conventional ammunition;
  - b. Particle accelerators which project a charged or neutral particle beam with destructive power;
  - c. High pulsed power or high average power radio frequency beam transmitters which produce fields sufficiently intense to disable electronic circuitry at a distant target.
2. This Item includes the following when specially designed for directed energy weapon systems:

- a. Prime power generation, energy storage, switching, power conditioning or fuel-handling equipment;
- b. Target acquisition or tracking systems;
- c. Systems capable of assessing target damage, destruction or mission-abort;
- d. Beam-handling, propagation or pointing equipment;
- e. Equipment with rapid beam slew capability for rapid multiple target operations;
- f. Adaptive optics and phase conjugators;
- g. Current injectors for negative hydrogen ion beams;
- h. "Space qualified" accelerator components;
- i. Negative ion beam funnelling equipment;
- j. Equipment for controlling and slewing a high energy ion beam;
- k. "Space qualified" foils for neutralising negative hydrogen isotope beams.

### **2024. "Software", as follows:**

2024. a. "Software" specially designed or modified for the "development", "production" or "use" of equipment or materials embargoed by this List;
- b. Specific "software", as follows:
1. "Software" specially designed for:
    - a. Modelling, simulation or evaluation of military weapon systems;
    - b. Development, monitoring, maintenance or up-dating of "software" embedded in military weapon systems;
    - c. Modelling or simulating military operation scenarios, not embargoed by Item 2014;
    - d. Command, Communications, Control and Intelligence (CI) applications;
  2. "Software" for determining the effects of conventional, nuclear, chemical or biological warfare weapons.

### **2026. Kinetic energy weapon systems and related equipment, as follows, and specially designed components therefor:**

2026. a. Kinetic energy weapon systems specially designed for destruction or effecting mission-abort of a target;
- b. Specially designed test and evaluation facilities and test models, including diagnostic instrumentation and targets, for dynamic testing of kinetic energy projectiles and systems;
- (For weapon systems using sub-calibre ammunition or employing solely chemical propulsion, and ammunition therefor, see Items 2001, 2002, 2003 and 2004).

#### **NOTES:**

1. This Item includes the following when specially designed for kinetic energy weapon systems:
  - a. Launch propulsion systems capable of accelerating masses larger than 0.1 g to velocities in excess of 1.6 km/s, in single or rapid fire modes;
  - b. Prime power generation, electric armour, energys storage, thermal management, conditioning, switching or fuel-handling equipment; and electrical interfaces between power supply, gun and other turret electric drive functions;
  - c. Target acquisition, tracking, fire control or damage assessment systems;
  - d. Homing seeker, guidance or divert propulsion (lateral acceleration) systems for projectiles.
2. This Item embargoes weapon systems using any of the following methods of propulsion:
  - a. Electromagnetic;
  - b. Electrothermal;
  - c. Plasma;
  - d. Light gas; or
  - e. Chemical (when used in combination with any of the above);
3. This Item does not embargo technology for magnetic induction for continuous propulsion of civil transport devices.