

- (d) Staging mechanisms and specially designed production equipment therefor;
- (e) Liquid fuel control systems and components therefor, specially designed to operate in vibrating environments of more than 12g rms between 20 Hz and 2000 Hz including:
  - (1) Servo valves designed for flow rates of 24 liters per minute or greater at a pressure of 250 bars, and having flow contact surfaces made of 90 percent or more tantalum, titanium or zirconium, either separately or combined, except when such surfaces are made of materials containing more than 97 percent and less than 99.7 percent titanium;
  - (2) Pumps (except vacuum pumps), having all flow contact surfaces made of 90 percent or more tantalum, titanium or zirconium, either separately or combined, except when such surfaces are made of materials containing more than 97 percent and less than 99.7 percent titanium.

Notes to Item 3:

- (1) Item 3(a) engines may be exported as part of a manned aircraft or in quantities appropriate for replacement parts for manned aircraft.
- (2) Item 3(e) systems and components may be exported as part of a satellite.

ITEM 4 - CATEGORY II

Propellants and constituent chemicals for propellants as follows:

- (a) Propulsive substances:
  - (1) Hydrazine with a concentration of more than 70 percent;
  - (2) Unsymmetric dimethylhydrazine (UDMH);
  - (3) Spherical ammonium perchlorate with particles of uniform diameter less than 500 microns;
  - (4) Spherical aluminum powder with particles of uniform diameter of less than 500 microns and an aluminum content of 97 percent or greater;
  - (5) Metal fuels in particle sizes less than 500 microns, whether spherical, atomized, spheroidal, flaked or ground, consisting of 97 percent or more of any of the following: zirconium, titanium, uranium, tungsten, boron, zinc, and alloys of these; magnesium; Misch metal;