

**1152. con't.**

2. Measuring equipment specially designed to evaluate and validate the "information security" functions controlled by 1151. or 1154.

**1153. Materials**

None.

**1154. Software**

1. "Software" specially designed or modified for the "development", "production" or "use" of equipment or "software" controlled by Category 1150.
2. "Software" specially designed or modified to support "technology" controlled by 1155.
3. Specific "software" as follows:
  - a. "Software" having the characteristics, or performing or simulating the functions of the equipment controlled by 1151. or 1152.;
  - b. "Software" to certify "software" controlled by 1154.3.a.

**Note:**

1154. does not control:

- a. "Software" required for the "use" of equipment excluded from control under the Note to 1151.;
- b. "Software" providing any of the functions of equipment excluded from control under the Note to 1151.

**1155. Technology**

1. "Technology" according to the General Technology Note for the "development", "production" or "use" of equipment or "software" controlled by Category 1150.

**Category 1060: Sensors and Lasers****1061. Equipment, Assemblies and Components****1. Acoustics**

- a. Marine acoustic systems, equipment and specially designed components therefore, as follows:

1. Active (transmitting or transmitting-and- receiving) systems, equipment and specially designed components therefore, as follows:

**Note:**

1061.1.a.1. does not control:

- a. Depth sounders operating vertically below the apparatus, not including a scanning function exceeding  $\pm 20^\circ$ , and limited to measuring the depth of water, the distance of submerged or buried objects or fish finding;
- b. Acoustic beacons, as follows:
  1. Acoustic emergency beacons;
  2. Pingers specially designed for relocating or returning to an underwater position.

- a. Wide-swath bathymetric survey systems designed for sea bed topographic mapping, having all of the following:

1. Being designed to take measurements at an angle exceeding  $20^\circ$  from the vertical;
2. Being designed to measure depths exceeding 600 m below the water surface; **and**
3. Being designed to provide any of the following:

- a. Incorporation of multiple beams any of which is less than  $1.9^\circ$ ; **or**
- b. Data accuracies of better than 0.3% of water depth across the swath averaged over the individual measurements within the swath.

1. a. 1. b. Object detection or location systems having any of the following:
  1. A transmitting frequency below 10 kHz;
  2. Sound pressure level exceeding 224 dB (reference 1  $\mu$ Pa at 1 m) for equipment with an operating frequency in the band from 10 kHz to 24 kHz inclusive;
  3. Sound pressure level exceeding 235 dB (reference 1  $\mu$ Pa at 1 m) for equipment with an operating frequency in the band between 24 kHz and 30 kHz;
  4. Forming beams of less than  $1^\circ$  on any axis and having an operating frequency of less than 100 kHz;
  5. Designed to operate with an unambiguous display range exceeding 5,120 m; **or**
  6. Designed to withstand pressure during normal operation at depths exceeding 1,000 m and having transducers with any of the following:
    - a. Dynamic compensation for pressure; **or**
    - b. Incorporating other than lead zirconate titanate as the transduction element;

1. a. 1. c. Acoustic projectors, including transducers, incorporating piezoelectric, magnetostrictive, electrostrictive, electrodynamic or hydraulic elements operating individually or in a designed combination, having any of the following:

**Notes:**

1. The control status of acoustic projectors, including transducers, specially designed for other equipment is determined by the control status of the other equipment.
2. 1061.1.a.1.c. does not control electronic sources which direct the sound vertically only, or mechanical (e.g., air gun or vapour-shock gun) or chemical (e.g., explosive) sources.

1. An instantaneous radiated acoustic power density exceeding 0.01 mW/mm<sup>2</sup>/Hz for devices operating at frequencies below 10 kHz;
2. A continuously radiated acoustic power density exceeding 0.001 mW/mm<sup>2</sup>/Hz for devices operating at frequencies below 10 kHz; **or**

**Technical Note:**

Acoustic power density is obtained by dividing the output acoustic power by the product of the area of the radiating surface and the frequency of operation.

3. Side-lobe suppression exceeding 22 dB;

1. a. 1. d. Acoustic systems, equipment and specially designed components for determining the position of surface vessels or underwater vehicles designed to operate at a range exceeding 1,000 m with a positioning accuracy of less than 10 m rms (root mean square) when measured at a range of 1,000 m;

**Note:**

1061.1.a.1.d includes:

- a. Equipment using coherent "signal processing" between two or more beacons and the hydrophone unit carried by the surface vessel or underwater vehicle;