The Aluminum Association

Office of the President
hbrock@aluminum.org

703.358.2980
Suite 600 1525 Wilson Boulevard
Arlington, Virginia 22209

June 18, 2012

Regulatory Policy Division
Bureau of Industry and Security
U.S. Department of Commerce
Room 2099B
14th Street and Pennsylvania Avenue NW.
Washington, DC 20230

Re: **RIN 0694–AF53: Revisions to the Export Administration Regulations (EAR): Control of Energetic Materials and Related Articles That the President Determines No Longer Warrant Control Under the United States Munitions List (USML)**

Dear Sir or Madam:

The Aluminum Association (TAA) is submitting comments in response to the Proposed Rule published in the above-referenced Federal Register Notice (77 Fed. Reg. 25932, May 2, 2012). TAA, located in Arlington, VA, represents U.S. and foreign-based primary producers of aluminum, aluminum recyclers and producers of fabricated products, as well as industry suppliers. The comments made in our letter are supported by the powder and paste producing members of TAA, which include: Albemarle Corp.; Alcoa Inc. (DDTC Code M-1062); Ampal, Inc.; Ecka Granules of America; Eckart Aluminum (DDTC Code-M23141); Silberline Manufacturing Co., Inc; Toyal America, Inc. (DDTC Code M-5680); and Valimet, Inc. (DDTC Code M-4063).[1]

Spherical aluminum powders are used in a wide range of predominately commercial and civil applications, including the production of conductive inks for photovoltaic applications, automotive pigments, thermal spray applications, the manufacture of refractory materials and heat management devices. Furthermore, the technology for the production of spherical aluminum powder is well known and readily available throughout the world. Papers highlighting all the specific techniques needed for the production of the subject merchandise have been presented at international conferences over the past several years. Spherical aluminum powder

[1] The member companies with identified DDTC registration codes are producers/exporters of the subject merchandise. To the best of TAA's knowledge, they are the only producers of the subject merchandise in the United States. The other listed TAA member companies join in these comments as they are either currently nodular aluminum powder producers that may increase their product range to include spherical aluminum powder, or they may be interested in purchasing spherical aluminum powder for export purposes to affiliates or customers abroad.

has been and is produced in several foreign countries: Brazil, China, France, Germany, India, Iran, Japan, Russia, and the United Kingdom. Evaluations of samples of subject merchandise produced by non-US producers have confirmed that they are identical in their characteristics to powders of similar size ranges produced in the United States.

1. For these reasons, The Aluminum Association believes that restriction of trade in spherical powder is ineffective and unwarranted.

2. However, The Aluminum Association supports, in principle, the proposal of the U.S. Department of State to move certain energetic materials, including spherical aluminum powders, from Category V of the USML to the Commerce Control List (CCL), shifting control of these materials from the International Traffic in Arms Regulations (ITAR), administered by the U.S. Department of State, to control under the Export Administration Regulations (EAR), administered by the U.S. Commerce Department. For the reasons stated above, TAA believes that it would be most appropriate to classify aluminum spherical powder as EAR99. However, in the context of the current proposed rule, TAA agrees that, of the proposed ECCN numbers and categories, ECCN 1C111 would be the most appropriate for spherical aluminum powder as a potential constituent chemical of propellant formulations, rather than oxidizers which are proposed to be controlled under 1C608.

TAA has the following concerns as to how spherical aluminum powder is listed in the proposed amendments to ECCN 1C111:

3. TAA supports a revision in the particle size description, incorporating a single particle size description with an upper and lower boundary, which would more accurately reflect the size of spherical aluminum powders which may have specific application in the manufacture of propellants. As proposed, the list of items to be controlled under ECCN 1C111 appears to combine the description of spherical aluminum powders which currently appears in the Commerce Control List ECCN 1C111 and the current description of spherical aluminum powders as it appears on the USML,

Category V (c)(5). Specifically ECCN 1C111a.1.a controls spherical aluminum powders, with particle size of less than 200 micrometers (particle size being defined as the mean particle diameter, on a weight basis) with an aluminum content of 97% or more, if greater than 10% of the particles are less than 63 micrometers in diameter. ECCN 1C111 a.1.b describes aluminum powders with greater than 99% purity, if greater than 50% of the particles are spheroidal in shape or are produced by an inert gas atomization process and with a particle size of less than 60 microns. It is not at all clear from these descriptions what is or is not being controlled. Specifically, a.1.a appears to control all spherical aluminum powders with a weight median diameter of 200 micrometers or less, which would encompass essentially all spherical aluminum powders being produced.

4. "Spheroidal" in the context of the description in a.1.b.2 is an unclear term and should be clarified or stricken from the proposal. Likewise, the means of measuring the percentage of "spheroidal" particles is unclear.

5. The Aluminum Association suggests the use of ASTM B 822-02 for the determination of particle size for aluminum, and more broadly, for metal powders. In a.1.a, the methods to be used to determine particle size are limited to ISO 2591:1988 (sieving techniques) or JIS Z8820 (sedimentation). However, the Related Definitions section of ECCN 1C11, particle size determination is made "through the use of best industrial practices." Sedimentation is used to determine particle size for many materials, but not for aluminum, or for metals in general, and specifically not for propellants.

The Aluminum Association would be pleased to provide you with any additional information that you may require for your review process.

Respectfully,

Heidi Brock

President