



4334-63-P

## DEPARTMENT OF THE INTERIOR

### Office of the Secretary

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### Final List of Critical Minerals 2018

**AGENCY:** Office of the Secretary, Interior.

**ACTION:** Notice.

**SUMMARY:** The United States is heavily reliant on imports of certain mineral commodities that are vital to the Nation's security and economic prosperity. This dependency of the United States on foreign sources creates a strategic vulnerability for both its economy and military to adverse foreign government action, natural disaster, and other events that can disrupt supply of these key minerals. Pursuant to Executive Order 13817 of December 20, 2017, "A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals," the Secretary of the Interior on February 16, 2018, presented a draft list of 35 mineral commodities deemed critical under the definition provided in the Executive Order. After considering the 453 public comments received, the Department of the Interior believes that the methodology used to draft the list remains valid and hereby finalizes the draft list of 35 critical minerals. The final list includes: aluminum (bauxite), antimony, arsenic, barite, beryllium, bismuth, cesium, chromium, cobalt, fluorspar, gallium, germanium, graphite (natural), hafnium, helium, indium, lithium, magnesium, manganese, niobium, platinum group metals, potash, the rare earth elements group, rhenium, rubidium, scandium, strontium, tantalum, tellurium, tin, titanium, tungsten, uranium, vanadium, and zirconium. This list of critical minerals, while "final," is not a permanent list, but

will be dynamic and updated periodically to reflect current data on supply, demand, and concentration of production, as well as current policy priorities. This final list will serve as the Department of Commerce's initial focus as it develops its report to comply with Section 4 of Executive Order 13817.

**ADDRESSES:** Public comments received on the draft list are available at [www.regulations.gov](http://www.regulations.gov) under docket number DOI-2018-0001.

**FOR FURTHER INFORMATION CONTACT:** Ryan Nichols, (202) 208-7250, [ryan\\_nichols@ios.doi.gov](mailto:ryan_nichols@ios.doi.gov). Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service (FRS) at 1-800-877-8339 to contact Mr. Nichols during normal business hours. The FRS is available 24 hours a day, 7 days a week, to leave a message or question with this individual. You will receive a reply during normal business hours. Normal business hours are 9:00 a.m. to 5:30 p.m., Monday through Friday, except for Federal holidays.

**SUPPLEMENTARY INFORMATION:** Executive Order 13817, "A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals" (82 FR 60835, December 26, 2017), addressed the United States' dependency on vulnerable limited and foreign supply chains of mineral commodities that are vital to the Nation's security and economic prosperity. The Executive Order directed the Secretary of the Interior, in coordination with the Department of Defense and in consultation with other executive branch agencies, to produce a list of critical minerals. The Secretary of the Interior in turn directed the U.S. Geological Survey (USGS), in coordination with the Bureau of Land Management (BLM), to provide technical input to a draft critical minerals list, and to incorporate Federal interagency input through the White House Office of Science and Technology Policy's National Science and Technology Council (NSTC)

Subcommittee on Critical and Strategic Mineral Supply Chains. The NSTC Subcommittee has representation from a wide range of Federal Departments including, but not limited to, Defense, Interior, Energy, State, Commerce, and Homeland Security.

The USGS used as a starting point for developing the draft critical mineral list the NSTC Mineral Criticality Screening Tool, which was first published by the Executive Office of the President in 2016 and updated in 2017. The tool is a quantitative methodology for identifying and ranking mineral commodities based on widely accepted criteria published in the mineral commodity literature. Using that methodology, and several other sources of data, the USGS applied two principal criteria to evaluate minerals for inclusion on the draft list of critical minerals: the Hirfindal-Hirschmann index, which measures country concentration of production, and the USGS net import reliance metric based on USGS's annual Mineral Commodities Summaries. The methodology used by the USGS to develop the draft list is described in USGS Open-File Report 2018-1021 (<https://pubs.usgs.gov/of/2018/1021/ofr20181021.pdf>).

Federal interagency feedback to Interior on the initial draft list highlighted one mineral, uranium, with both fuel and non-fuel uses, and for which Energy Information Administration data indicated high production concentration and significant import reliance. Based on those data, the USGS agreed that it would be consistent with the methodology to include uranium on the draft list for public comment.

Pursuant to Executive Order 13817, on February 16, 2018, the Secretary of the Interior published the draft list of critical minerals in the Federal Register (83 FR 7065). The draft list consisted of 35 minerals or mineral material groups deemed critical under the definition provided in the Executive Order: Aluminum (bauxite), antimony, arsenic, barite, beryllium, bismuth, cesium,

chromium, cobalt, fluorspar, gallium, germanium, graphite (natural), hafnium, helium, indium, lithium, magnesium, manganese, niobium, platinum group metals, potash, the rare earth elements group, rhenium, rubidium, scandium, strontium, tantalum, tellurium, tin, titanium, tungsten, uranium, vanadium, and zirconium.

The Federal Register notice included a 30-day public comment period, which closed on March 19, 2018. The comments are available for public viewing at [www.regulations.gov](http://www.regulations.gov) under docket DOI-2018-0001. DOI received 453 comments, including 118 comments made anonymously, 273 from individuals, and 62 submitted on behalf of organizations (20 from industry organizations, 18 from mining companies, ten from consultants and other businesses, six from non-governmental environmental organizations, five from government agencies, and three from elected officials). The comments included 147 requests to add a total of 13 minerals to the list, with seven minerals (copper, silver, nickel, gold zinc, molybdenum and lead) each receiving over 10 requests for addition to the list. There were 183 requests to delete one mineral (uranium) from the list.

After considering all comments received, the Department of the Interior believes that the methodology described in USGS Open-File Report 2018-1021 remains valid. Therefore, the Department of the Interior is hereby finalizing the draft list of 35 critical minerals as the final list. This list of critical minerals, while “final,” is not a permanent list, but will be dynamic and updated periodically to reflect current data on supply, demand, and concentration of production, as well as current policy priorities. This final list will serve as the initial focus for the Department of Commerce report, currently in development pursuant to Executive Order 13817.

This final list is based on the definition of a “critical mineral” provided in Executive Order 13817. The U.S. Government and other organizations may also use other definitions and rely on other criteria to identify a material or mineral as “critical” or otherwise important. This final list is not intended to replace those related terms and definitions for minerals or materials that are deemed strategic, critical or otherwise important (e.g., National Defense Stockpile). The Department of the Interior recognizes the economic significance and indispensable nature of other minerals that are produced domestically in large quantities such as copper, zinc, molybdenum, gold, silver, and industrial minerals such as phosphate, sand, gravel, and aggregate. Given current levels of domestic production, the U.S. is not highly reliant on imports for these minerals and typically has a combination of domestic reserves and reliable foreign sources adequate to meet foreseeable domestic consumption requirements. While these minerals do not currently meet the definition of critical, they are similar to critical minerals in that they are indispensable to a modern society for the purposes of national security, technology, infrastructure, and energy production (both fossil fuels and renewables). It should be noted that some potential supply chain vulnerabilities relating to critical minerals, such as high import reliance and limited domestic capability for production of refined metals and processed alloys, extend beyond what is described here and will be addressed within the Department of Commerce report to be submitted to the President as required by Executive Order 13817. The Department of the Interior also recognizes that many public comments addressed issues not directly associated with the development of the critical minerals list. Instead, they addressed regulatory and policy issues more appropriately considered as part of the Department of Commerce report.

Those comments will be available to help inform the development of the Commerce report. Finally, the Department of the Interior recognizes that a significant number of comments requested the removal of uranium from the list. As noted above and in USGS Open-File Report 2018-1021, input from other agencies represented on the NSTC Subcommittee on Critical and Strategic Mineral Supply Chains emphasized that uranium, while primarily known as a fuel mineral, also has important non-fuel uses, and otherwise meets the criteria for inclusion. The NSTC Mineral Criticality Screening Tool was designed as an early warning screening tool that identifies potentially critical minerals using regularly-reported and publicly-available data. The screening tool was designed so that potential mineral criticality could be evaluated in a repeatable and transparent manner, on an ongoing basis. This tool is updated annually by the USGS on behalf of the NSTC Subcommittee when USGS releases a new year of mineral production and price data. This systematic, annual collection, analysis, and publication of mineral information is the foundation for the analysis of present-day security of supply for minerals and mineral materials and of changes in the security of supply over time. With this basis, the finalized list of critical minerals provides a starting point for developing a new Federal strategy and a continuing process to strengthen supply chains. The finalized list does not foreclose later addition of minerals that become critical in the future due to advances in technology, natural disasters, world events, and other factors influencing the security of supply and demand.

As part of developing the new Federal strategy, Executive Order 13817 and Secretary's Order 3359, "Critical Mineral Independence and Security" (December 21, 2017), direct further efforts

to assess potential domestic critical mineral resources above ground and below ground, and to examine Federal leasing and permitting processes to expedite access to these potential resources. Because the critical minerals on the final list are administered under existing mineral disposal laws and regulations, any recommendations to improve permitting processes for those critical minerals will improve permitting processes for all minerals administered under the same laws and regulations by the Bureau of Land Management and other Federal land management agencies.

The Department of the Interior recognizes that many commodities are not mined directly, but are instead recovered during the processing, smelting, or refining of a host material and are, therefore, deemed “byproducts.” Of the 35 minerals deemed critical, 12 are byproducts. Therefore, strategies to increase the domestic supply of these commodities must necessarily consider the mining and processing of the host materials because enhanced recovery of byproducts alone may be insufficient to meet U.S. consumption.

**Authority:** E.O. 13817, 82 FR 60835 (December 26, 2017).

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Timothy R. Petty  
Assistant Secretary for Water and Science  
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