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Statement of
Douglas L. McCullough, Deputy Director
Energy and Minerals Division



Before the
Subcommittee on Energy and Mineral Resources
of the
Senate Committee on Energy and Natural Resources

on
Strategic and Critical Minerals and Materials

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to comment on the issue of strategic and critical minerals and materials and, in particular, the President's April 5, 1982, program plan and report to the Congress.

Concern over the uncertain availability of some minerals and materials considered essential or critical to this Nation's industrial base during peacetime, demand surges including military buildups, and mobilization for national emergencies has long been an issue associated with the need for a national nonfuel minerals and materials policy. Accordingly, the National Materials and Minerals Policy, Research and Development Act of 1980, Public Law 96-479, gives high priority to the issue of strategic and critical minerals and materials.

We are monitoring, at congressional request, the overall performance of Federal agencies having responsibilities under Public Law 96-479. Generally, we believe that the President's program plan and the reports to the Congress required by the

act represent a first step towards developing the policy and legislative, budgetary, and programmatic proposals mandated by the Congress. Our testimony today relates to further implementation of the 1980 act, specifically actions identified in a June 3, 1982, report 1/ which we believe are needed to promote a stable supply of strategic and critical minerals and materials.

While the President's program plan identifies general solutions to diminish U.S. minerals and materials vulnerability, more specifics are required. For example, the plan does not adequately address such fundamental, rudimentary issues as

- what constitutes a strategic and critical mineral or material,
- what is the magnitude of potential U.S. vulnerability in a given nonfuel mineral or material market, and
- what is the proper Federal role, including the benefits and costs associated with various mitigating alternatives.

Unless these issues are resolved, a viable strategy to reduce U.S. minerals and materials vulnerability may be difficult, if not impossible, to implement, and the limited Federal funds available may not be expended in the most cost-effective manner.

1/U.S. General Accounting Office, "Actions Needed to Promote a Stable Supply of Strategic and Critical Minerals and Materials," GAC/EMD-82-69, June 3, 1982.

THE TERMS "STRATEGIC" AND "CRITICAL"
SHOULD BE CLEARLY DEFINED

The first action we believe is needed is to clearly define the terms "strategic" and "critical."

The most commonly used definition of potential availability problems is an estimated percentage of U.S. consumption that is satisfied by imported supplies. Using this definition, the United States appears vulnerable in at least 26 of the 45 nonfuel mineral markets deemed essential to an industrialized economy. However, high U.S. import reliance is not synonymous with vulnerability and does not necessarily present a high risk to the U.S. economy or national priorities such as defense and energy. Therefore, we believe that the term "strategic" should relate to the probability of a supply disruption or sharp price increase in a given nonfuel mineral or material market and its expected duration. The term "critical" should relate to the adverse impact that would occur if supplies are disrupted or prices are sharply increased. Clarifying these terms would reduce the number of markets deemed strategic and critical, thereby focusing attention on those where the United States is most vulnerable.

AN APPROACH SHOULD BE DEVELOPED
TO MEASURE THE MAGNITUDE OF THE
POTENTIAL PROBLEM

The second action we believe necessary is to develop an approach to measure the magnitude of the potential problem by quantifying the "degree" of U.S. vulnerability in a given market. This would include establishing definitive strategic and critical criteria and developing an methodology for their consistent application.

Strategic factors such as (1) the political and economic stability of major foreign suppliers; (2) concentration of production and/or processing capacity in one or several foreign countries and their geographic proximity to the United States; and (3) political, military, and economic ties with the United States must be considered in estimating the probability of a supply disruption or sharp price increase and its expected duration. Criticality factors such as (1) the cost of the potential loss to the U.S. economy and to national priorities such as defense and energy; (2) the availability of incidental, market-related incentives such as substitution, conservation, expanding domestic and foreign supplies, increasing recycling, and drawing down industry stocks to mitigate any adverse impact; and (3) the lead time associated with implementing the various mitigating alternatives should be considered in estimating the adverse impact that would occur if supplies are disrupted or prices are sharply increased.

SHORT-TERM ACTIONS SHOULD ADDRESS LONG-TERM GOALS

Finally, if Federal intervention in individual strategic and critical nonfuel mineral and material markets is deemed necessary based on a consistent approach that quantifies the degree of U.S. vulnerability, comparative analyses among these minerals and materials should be performed, and the benefits and costs of additional mitigating alternatives weighed. Legislative, budgetary, and programmatic proposals developed to address significant problems identified should articulate how the

short-term action incorporates the long-term goals of Public Law 96-479 to promote an adequate and stable supply of minerals and materials necessary to maintain national security, economic well-being, and industrial production.

Public Law 96-479 also recognizes that development of a formal, operational statement of U.S. policy on nonfuel minerals and materials must establish a long-term balance among resource protection, energy use, a healthy environment, natural resources conservation, and social needs. Tradeoffs between these policies and nonfuel minerals and materials should be weighed so that decisions can be made in full recognition of the possible consequences.

We believe that the issue of U.S. vulnerability to supply disruptions and sharp price increases in strategic and critical nonfuel mineral and material markets cannot be resolved through general solutions for reducing U.S. dependency on foreign sources. Instead, assuring U.S. access to future strategic and critical mineral and material supplies will require a long-term plan tailored for a specific mineral or material that considers its extraction, processing, and consumption system. Developing and implementing such a "systems basis" approach to resolving U.S. vulnerability problems must involve the Departments of the Interior, Commerce and Defense as well as other Federal agencies. It will also require continuing long-range analyses and planning relating to given strategic and critical nonfuel minerals and materials as required by Public Law 96-479.

In summary, the administration has taken a first step towards developing a national nonfuel minerals and materials policy. We

have, in turn, recommended additional actions we believe are needed to help achieve the policy goal of diminishing U.S. minerals and materials vulnerability.

We are awaiting with interest the administration's response to our report recommendations and we are sure it will be of interest to this subcommittee as well. Such response is required by law within 60 days of the report's issuance. Finally, we look forward to working closely with this subcommittee and the administration in formulating a strategic and critical nonfuel minerals and materials policy and program plan.

Mr. Chairman, that concludes my statement. I welcome any questions the subcommittee may have.