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United States Department of the Interior

BUREAU OF MINES  
2401 E STREET, NW.  
WASHINGTON, D.C. 20241

March 9, 1984



Memorandum to:

Ken Glozer, OMB Room 8234 New EOB	<b>ATTN: BRUCE FITZGERALD</b>	Richard Levine, NSC Room <del>373</del> 365 Old EOB
Maurice Ernst, CIA Room <del>7E48</del> 7E47 Hq. Langley		Warren Farb, DOC Room 4836 Main Commerce
Richard Donnelly, DOD Room 3C257 Pentagon	<b>ATTN: JACK ECK</b>	Edward Zabrowski, FEMA Room 617 FEMA

STAT

From: John Morgan, Room 1038, BuMines (phone 202-634-1330)

**FRED SHOUP FOR STATE**  
**Room 8448**

At the February 1 and 24 meetings of the Stockpile Review Group it was indicated that some additional detail covering assumptions should be included in our covering memorandum "Scenario 3 World Mineral Production Capacities." The attached is submitted in compliance with that request. Because the original wording was so carefully weighed and edited, it is left intact and the new material is clearly marked by underlining.

Please let me know by Friday, March 16, if you have any further suggestions.

Attachment

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SCENARIO 3 WORLD MINERAL PRODUCTION CAPACITIES

These tables summarize engineering estimates of world mineral production capacity, based on known mineral deposits, present capacities, and additions to capacities under way or feasible under Scenario 3 conditions (without reductions for zones of military hostilities, political alignments, or shipping losses). They are not mere statistical projections but are based largely on specific deposits, mines, smelters, and refineries. It is assumed that at the start of the period of warning the U.S. government would establish Industry Advisory Committees, cleared for access to security information, in order to assess the adequacy of existing productive capacity and to recommend measures that would be necessary to sustain and to enlarge such capacity. Such Industry Advisory Committees were widely utilized in World War II and in the Korean War period and are currently authorized by the Defense Production Act and the Stock Piling Act. In World War II and in the Korean War the government endeavored to control the economy by a broad spectrum of price, wage, credit, and investment controls, along with priorities and allocations covering materials, fuel, power, transportation, and other factors of production. In World War II, a major international control was the control of shipping by the U.S. and Allied powers because the availability of shipping space for export of essential machinery and supplies and imports of ores and mineral materials governed much of the free world economy. These projections assume a reinstatement of world shipping controls similar to the World War II type. It must be noted that control of the free world economy in the 1980's will be much more difficult than was the situation in World War II and the Korean War. In those days virtually all of Africa was under the control of allied European nations and virtually all of the critical industries in Canada and Latin America were under the control of U.S. commercial interests. Today there are several dozen independent countries on the African continent, many riven internally by tribal hostilities. Even in Canada the Provinces often are unresponsive to the wishes of the central government.

Also inherent in the U.S. supply projections is the assumption that there will be stringent domestic measures to protect key industrial facilities - including mines, smelters, refineries, power generation and distribution, and transportation - against sabotage. This would require control not only of the millions of undocumented aliens presently in the U.S. but also control of U.S. citizens in ways that could well exceed measures taken in World War II. After Germany attacked the Soviet Union in June 1941 left-wing elements in the U.S. aided the war efforts, but what would happen today in an US/USSR war ??? The security of the U.S. transportation system is of the utmost importance to the mineral sector of the economy because minerals and processed materials

of mineral origin including fuels account for 90 percent of U.S. waterborne imports, 60 percent of U.S. waterborne exports, 85 percent of domestic waterborne commerce, 60 percent of domestic rail shipments, and 100 percent of domestic pipeline movements. To produce at these capacities could require selective use of Defense Production Act Title I authorities for priorities and allocations and/or Title VII authorities for voluntary agreements (which facilitate industrial cooperative activities) covering needed factors of production in short supply such as: fuel and electric power, construction supplies (steel, aluminum, cement, wire, etc.), machinery, MRO (maintenance, repair, and operating supplies), scientific and technical personnel, and sea, land, and air transportation. Relaxation of many current environmental regulations may also be required. The assumption is also made that prices for mineral materials will be largely free of government controls. The easiest bureaucratic response in the event of an emergency is to impose an across-the-board price freeze. However, prices cannot be frozen worldwide and most mineral commodities are traded worldwide; consequently, a domestic price freeze has four negative impacts: it discourages supply expansions; it encourages marginal and frivolous uses; it encourages exports - open or concealed - from the U.S.; and it discourages movement of foreign materials into the U.S. In order to induce increased supplies from existing capacity by unleashing the ingenuity of the private sector through the stimulation of market forces, it probably would be sufficient for prices of common mineral materials such as steel, aluminum, copper, lead, and zinc to rise about 50 percent above recent levels, but the exotic materials such as cobalt, columbium, and tantalum would require prices as much as 4 or 5 times recent levels. However, transitory market price rises by themselves are generally inadequate to stimulate long-run capacity additions. Producers may require long-term market guarantees of the Defense Production Act Title III type for U.S. production, and possibly for foreign production. Such guarantees should assure the recovery of capital invested in expansions of capacity. Reactivation of the U.S.-Canada Joint Industrial Mobilization Planning Agreement of 1949 (attached) is essential because Canada is a major source of many U.S. mineral imports as shown by Figure 1. Also creation of an allied raw materials coordinating body, such as the International Materials Conference of the Korean War (which involved 27 nations and The OAS and OEEC and covered 12 major commodities) would be required to assist in maintaining orderly free-world markets.

Stable and convertible currencies would assist significantly, and use would also have to be made of The Export Administration and International Emergency Economic Powers Acts and in some cases, stockpile releases under Sec. 7 of The Strategic and Critical Materials Stock Piling Act.

To bring into production presently known but undeveloped major mineral deposits can take 5 to 7 years for some minerals even under favorable conditions, although small mining operations which ship to existing smelters or processors can usually expand in a few years. Consequently, the start of a national security emergency, or even a war, may not be sufficient to induce the private sector to make the multi-billion dollar investments required for major additional productive capacity, which

could later be excess capacity. Further, because mineral deposits are wasting assets often with areas of differing grades (percent mineral content), temporary high prices sometimes result in lowered production, because the mine management seeks advantageous long-term development of the geometry of the ore body. Consequently, by maintaining hoisting capacity and mill through-put tonnages, management often treats lower-grade ores in periods of higher prices because such ores become economic to treat, and the high-grade ores are conserved for future periods of depressed prices. Therefore, to secure expansion in times of emergency, it could be necessary for the government to guarantee the recovery of additional invested capital through accelerated tax amortization (rapid write-off), as was done in World War II and the Korean War under Sec. 124A (later Sec. 168) of the Internal Revenue Code, plus market guarantees with buy-out provisions covering the undepreciated facility costs, as was done in the Korean War under Title III of the Defense Production Act.

Additional U.S. domestic supply expansion increments are provided at the bottom of each sheet based on the use of what might be called "Concerted Programs," meaning coordinated national programs similar to the World War II aluminum, synthetic rubber, and aviation gasoline programs. None of these expansions requires breakthroughs in science or technology, but each would entail a concentrated marshalling of engineering resources, physical capital, and other productive inputs. While some could be initiated during the warning period, all concerted programs probably could not all be accomplished simultaneously, requiring some prioritization thereof based on meeting definitive military requirements first and less important civilian needs subsequently.

Dr. J. D. Morgan  
March 9, 1984  
634-1330

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# JOINT INDUSTRIAL MOBILIZATION COMMITTEE

Agreement between the UNITED STATES  
OF AMERICA and CANADA

*The American Ambassador to the Canadian Secretary of State for  
External Affairs*

AMERICAN EMBASSY

Ottawa, Canada, April 12, 1949.

No. 93

EXCELLENCY:

I have the honor to inform Your Excellency that the common interests of Canada and the United States in Defence, their proximity and the complementary characteristics of their resources clearly indicate the advantages of coordinating their plans for industrial mobilization, in order that the most effective use may be made of the productive facilities of the two countries.

The functions of the Department of Trade and Commerce and the Industrial Defence Board in Canada and those of the National Security Resources Board and the Munitions Board in the United States suggest that, for the present, it would be appropriate to use these Agencies to assist the two Governments in coordinating their Industrial Mobilization Plans.

Therefore, my Government wishes to propose that the two Governments agree:

- (a) That a Joint Industrial Mobilization Committee be now constituted consisting, on the United States side, of the Chairman of the National Security Resources Board and the Chairman of the Munitions Board and, on the Canadian side, of the Chairman of the Industrial Defence Board and a Senior Official of the Department of Trade and Commerce;
- (b) That the Joint Committee:
  - (i) Exchange information with a view to the coordination of the plans of the United States and Canada for Industrial Mobilization;
  - (ii) Consider what recommendations in the field of Industrial Mobilization planning, in areas of common concern, should be made to each Government;
  - (iii) Be empowered to organize Joint Sub-Committees from time to time to facilitate the discharge of its functions;
  - (iv) Be responsible for cooperation with the Permanent Joint Board on Defence on matters of Industrial Mobilization.

If your Government is agreeable to the above Proposals, it is understood that this Note, together with your Note in reply agreeing thereto, shall constitute an agreement between our two Governments which shall enter into force on the date of your reply and shall remain in force indefinitely subject to termination by either Government at any time on giving six months' notice.

Please accept, Excellency, the renewed assurances of my highest consideration.

LAURENCE A. STEINHEARDT

His Excellency the Honorable  
The SECRETARY OF STATE  
FOR EXTERNAL AFFAIRS,  
Ottawa.

- Effected by Exchange of Notes 63 Stat 2331;  
Signed at Ottawa April 12, 1949 TIAS 1889 - 6 Bevans 486;  
206 UNTS 241
- Entered into force April 12, 1949

*The Canadian Secretary of State for External Affairs to the American  
Ambassador*

DEPARTMENT OF  
EXTERNAL AFFAIRS  
CANADA

NO. 112

OTTAWA, April 12, 1949.

EXCELLENCY,

I have the honour to acknowledge the receipt of Your Excellency's note No. 93 of April 12, 1949, in which you inform me that the Government of the United States of America wishes to propose that our two Governments agree:

- (a) that a Joint Industrial Mobilization Committee be now constituted consisting, on the United States side, of the Chairman of the National Security Resources Board and the Chairman of the Munitions Board and, on the Canadian side, of the Chairman of the Industrial Defence Board and a senior official of the Department of Trade and Commerce;
- (b) that the Joint Committee:
  - (i) exchange information with a view to the coordination of the plans of the United States and Canada for industrial mobilization;
  - (ii) consider what recommendations in the field of industrial mobilization planning in areas of common concern should be made to each Government;
  - (iii) be empowered to organize joint subcommittees from time to time to facilitate the discharge of its functions;
  - (iv) be responsible for cooperation with the Permanent Joint Board of Defence on matters of industrial mobilization.

2. I have the honour to inform Your Excellency that the Government of Canada concurs in the foregoing proposals and agrees that Your Excellency's note and this reply shall constitute an agreement between our two Governments which shall enter into force on this day and shall remain in force indefinitely, subject to termination by either Government at any time on giving six months' notice.

Accept, Excellency, the renewed assurances of my highest consideration.

L B PEARSON  
Secretary of State for  
External Affairs.

His Excellency, The Hon. LAURENCE A. STEINHEARDT,  
Ambassador of the United States of America,  
Embassy of the United States of America,  
100 Wellington Street,  
Ottawa.

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**NET IMPORT RELIANCE: 1983  
SELECTED NONFUEL MINERAL MATERIALS**

**U.S.A.**

**MAJOR SOURCES**

COLUMBIUM	100	Brazil, <u>Canada</u> , Thailand
MICA (SHEET)	100	India, Brazil, Belgium
STRONTIUM	100	Mexico
MANGANESE	99	So. Africa, France, Australia, Gabon
BAUXITE & ALUMINA	96	Australia, Jamaica, Guinea, Surinam
COBALT	91	Zaire, Zambia, <u>Canada</u> , Belg.-Lux., Japan
TANTALUM	91	Thailand, <u>Canada</u> , Malaysia, Brazil
PLATINUM-GROUP	84	So. Africa, USSR, UK
CHROMIUM	77	So. Africa, USSR, Phil., Zimb., Yugo.
NICKEL	77	<u>Canada</u> , Australia, Norway, Botswana
POTASH	75	<u>Canada</u> , Israel
TIN	72	Malaysia, Thailand, Bolivia, Indonesia
CADMIUM	69	<u>Canada</u> , Australia, Mexico, Korea
ZINC	66	<u>Canada</u> , Peru, Mexico, Australia
ASBESTOS	65	<u>Canada</u> , So. Africa
BARITE	64	China, Peru, Chile, Morocco
SILVER	61	<u>Canada</u> , Mexico, Peru, UK
ANTIMONY	52	So. Africa, Bolivia, China, France
VANADIUM	52	So. Africa, <u>Canada</u> , Finland
GYPSUM	39	<u>Canada</u> , Mexico, Spain
TUNGSTEN	39	<u>Canada</u> , Bolivia, China
IRON ORE	37	<u>Canada</u> , Venezuela, Brazil, Liberia
SELENIUM	37	<u>Canada</u> , Japan, UK, Belg.-Lux.
SILICON	30	<u>Canada</u> , Brazil, Norway, Venezuela
MERCURY	25	Japan, Spain, <u>Canada</u> , Italy
GOLD	21	<u>Canada</u> , Switzerland, USSR
ALUMINUM	18	<u>Canada</u> , Ghana, Venezuela, Japan
COPPER	17	Chile, <u>Canada</u> , Peru, Zambia
SULFUR	16	<u>Canada</u> , Mexico
IRON & STEEL	13	Europe, Japan, <u>Canada</u>
LEAD	11	<u>Canada</u> , Mexico, Australia, Peru
NITROGEN	11	<u>Canada</u> , Trinidad & Tobago, USSR, Mexico

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