of exploration and discovery, extraction, processing, and use. That is, we can match technology against richer ores, lower labor costs, and tax concessions, and maybe balance these two things out.

The question arises: Why must the U.S. Government provide this technology? Let industry do it.

Well, industry is not doing it.

Industry is stimulated primarily by the profit motive. If investment climate and profit potential are more attractive for foreign ores—then they will understandably follow that attraction. Particularly if they cannot compete by means of domestic production.

That is one of the characteristics of the free enterprise system, of course.

Iron ore is a good example. We have plenty, yet 40 percent is imported because of its lower cost.

And the potash situation is the best example.

We also feel that the U.S. zinc production may disappear except for byproduct zinc by 2000, in spite of our reserves and potential resources, because U.S. costs are becoming higher and higher relative to foreign operations.

Thus, the U.S. mining industry is seeking lowest cost operations and thus trending to foreign ores. With a few exceptions, such as offshore oil and gas, its major expenses are increasingly directed toward foreign exploration and the development of foreign production facilities which are low risk because they use current and past technology. With few exceptions, they have no large programs aimed at new technology for improving domestic production.

And this again is the disadvantage of developing technology. It has a negative cash flow, a high initial cost, and it takes 5 to 10 years to get your money back in terms of the investment.

I mentioned earlier that it was possible to categorize the essential issues developed to date in the study. Nine such categories of common issues have in fact been clearly defined and I shall summarize them briefly.

### I. MAINTAINING AN ADEQUATE MINERAL CAPABILITY

In notable instances, and particularly with respect to mineral commodities that are produced and consumed in large quantities, the United States will find it increasingly difficult during the next several decades to compete with higher grade, lower cost, and relatively abundant foreign sources.

Our estimates indicate that if you simply extrapolate today's trends, by the year 2000 I think we will be importing 98 percent of our iron. And we will be importing all of our lead and all of our zinc.

Now, simple extrapolation is a dangerous thing. But nevertheless, these are the trends.

It is obviously important that we find ways to minimize this difficulty, because of the inherent advantage in strategy, security, bargaining strength, economic gains and other benefits that go with an assurance that some appropriate proportion of the domestic need for primary mineral raw materials is satisfied from domestic sources.

The means of accomplishing this are limited and confined largely to alternative forms of protectionism or to competitive advantages gained through improvements in technology.