

a problem requiring immediate attention, and depending upon the stringency of air pollution laws, may require a major effort.

Conflicts are inherent in the emerging programs designed to protect natural endowments, to improve the Nation's environment and insure the welfare of its growing population. Specifically, the Wilderness program and public works designed to conserve essential land and water resources will increase confrontations with the industry and will present increasingly difficult problems for reconciliation. Yet it is essential in the public interest that such issues be equitably resolved. The subject deserves the highest order of priority. Because approximately 1 ton of makeup water is required per ton of ore processed in the concentrator, and with population increases and industry expansions, conflicts for sufficient water to process increasing amounts of ore can be anticipated in the Western States where much of the production is obtained. Decreased water requirements could result from research on the beneficiation step.

The copper stockpile has been drawn down deeply below the minimum level considered necessary for national security as a result of recent Government action in the form of releases to help control prices in an attempt to maintain adequate consumer supplies while accommodating large military requirements.

CORUNDUM

Domestic requirements are met from a single foreign source and are applied to essentially a single end-use, lens grinding. Moreover, that need could be accommodated with readily available substitute materials without significant economic impact.

Some emery (corundum and magnetite) is produced domestically and is employed in various abrasives. It, too, has a variety of substitutes and presents no pressing issue.

DIATOMITE

The United States can meet all of its requirements from domestic sources and, in addition, presently furnishes a large part of the world's supply. Diatomite has diversified industrial uses and is particularly important because of its unique filtration capability. Probably the substance would be in critical demand as a medium for the removal of radioactive particles from water supplies in a nuclear emergency. Except for a go or no-go trial procedure no effective testing process has been developed for determining if a deposit has useful properties. The development of such a test would diversify the source and probably improve the market potential.

In many applications other materials may substitute for diatomite (see perlite and vermiculite). Even sand, gravel, and coal can be substituted for some uses. Some inquiry into applications, where the unique properties of diatomite might enjoy some advantage over less effective substances, would tend to extend present utilization and marketing patterns.

Five Western States supply domestic production, and high transportation costs of this high bulk commodity, especially to eastern areas, encourage interest in beneficiating eastern deposits for commercial use.

All production is from surface workings and, as in the case of other bulk commodities, the problem of reconciling conflicting land-use problems is present.

FELDSPAR

Being among the most common of the rock-forming minerals, basic supply is no issue, but location of sources in regard to markets and certain sought-after properties, dictated by specialized applications, form the pattern of development. Like other bulk commodities, transportation costs limit marketing areas, but specific innovations that tend to lower production costs or improve the quality of the product can improve the economic advantage of one location over another. Efforts directed to improve the status of certain economically depressed regions should include this possibility in their consideration.

Technologic advances have provided for a healthy growth in the industry. First, the evolution of beneficiation processes permitting the extraction of marketable products from feldspar-bearing rocks and sands has reduced the dependence upon hand-cobbed crystals from pegmatite deposits. Then the large-scale introduction of feldspar into the glassmaking industry vastly increased the market and helped evolve the disposable bottle. The latter commodity has become a villain in the emerging concern for the role of waste and litter in the environment. Thus the