Artillery Peak Mill Proposed

Interior Department Proposes Big Mine and Power Development for County, Bridge Canyon Dam Included

A proposed expansion program of mineral and power developments in the United States, scaled to meet the enormous demands of the war production schedule, was laid before the United States senate last Monday by the Secretary of the Interior, Harold L. Ickes.

In response to an inquiry from Senator Joseph C. O'Mahoney of Wyoming, chairman of the subcommittee which has been investigating the use of the resources of the west, Secretary Ickes submitted details of a program which would use low grade domestic ores to help make the United States independent of foreign minerals during the emergency, save millions of tons of shipping and possibly the use of navy vessels for convoy, and would also look toward the rounded development of the west.

Secretary Ickes' reply to Senator O'Mahoney showed that the department of the interior was ready upon congressional authorization to act immediately in harnessing to the war effort the vast mineral and power resources of the nation. Basic information requested by Senator O'Mahoney which is covered in the multi-point resources mobilization program reported by Secretary Ickes, included the financing of mineral and industrial development, avoiding monopolization, and the development of additional power facilities to meet war requirements and later to serve America in peace.

The program includes large scale development of low grade ores in order to make a far greater use of the mineral resources of the nation than has yet been made, a plan of action which has been steadily pressed by the department of the interior. The major points of the mineral development program are:

1. To solve the problem of securing wide and general use of new processes, the department asks congress to instruct the bureau of mines to push the work to a triple-speed basis on the development of: means for the processing of low grade manganese ores, or alunites and magnesites; plants to use new iron ore reduction processes producing sponge iron for later smelting; economical extraction of such metals as copper, lead and zinc from our abundant resources of low grade ores; and increasing production of the alkali and alkaline earth metals, lithium, sodium, strontium, barium and beryllium; and to further the utilization of mineral resources by the power generated at Bonneville and Grand Coulee dams. Secretary Ickes proposes an electro-development laboratory to be situated in the northwest.

As a part of this general program all enemy alien patents and processes are to be examined and tested, while all American-owned patents and processes for minerals needed for winning the war should be made available for the confidential use of the bureau of mines with a view toward recommending the most effective processes. The bureau of mines will stand ready to provide every user of processes developed by the department, or recommended by it, with part of the time of a skilled engineer. Secretary Ickes also proposes that records of all mineral developments in the areas listed be made available confidentially to the geological survey and the bureau of mines in order that they may utilize the information to speed up the exploratory work.

2. To break the second major bottleneck in the production both of ores which have been considered strategic, such as tin, anti-

mony, mercury and nickel, and ores that have not previously been considered strategic, such as copper, zinc, lead and iron. Secretary Ickes proposes that congress make funds available for exploratory work by the bureau of mines and the geological survey for copper, iron, chromite, zinc and lead, involving the assignment of 250 additional engineers and geologists to intensive exploratory work in low-grade areas in a tentative list of 22 states and Alaska.

3. To break the third major bottleneck of securing capital for the development of short-lived or low grade ore bodies and for mills or smelters to develop such low grade materials. Secretary Ickes, when requested by the war production board, the department of the interior be given the power to certify to the Reconstruction Fi-

nance Corporation for loans to companies or individuals seeking to develop low grade ores or contracting mills or smelters for the production of these essential war minerals, and that this certification be construed to be an obligation of the Reconstruction Finance Corporation by amendments to Reconstruction Finance Corporation acts. Finally, if private capital or competent management is not interested in developments of considerable risk, the Bureau of Mines be allowed to develop the mines or custom mills or refineries and to be given the same long-term contracts as are offered to private citizens. Secretary Ickes also proposes a mineral policy board of nine members, including representatives of the war and navy departments and the national resources planning board and would initiate regional marketing plans and a leasing system which will tend to prevent non-use of mineral resources.

4. Recommendations for manganese development sufficient to produce approximately 2,683,000 long tons of manganese metal, enough for 429,000,000 tons of steel, and the providing of establishment of eight large milling plants, three hydro-metallurgical processing plants, and one matte smelting plant, all of which will save 1,112,680 tons of shipping per year from Brazil and Cuba to the United States. Deposits in 13 districts and eight states would furnish the necessary tonnage.

5. Recommendations for the revision of aluminum manufacturing practices to make the fullest possible use of new processes developed by the bureau of mines which utilize common domestic shales, natural alums, leucites, glauncanite sands, feldspars, and aluminum bearing tailings from porphyry copper deposits to produce alum in small plants. The alum to be shipped to large centrally located plants for conversion into alumina, the basic aluminum material, by the use of another process recently developed by the bureau of mines.

6. Three new processes for the production of magnesium are reported in final stages of development by the bureau of mines, in addition to other processes which extract magnesium from widely occurring rock formation, instead of the usual sea water or relative scarce deposits of magnesite.

7. Low grade chromites, capable of producing 1,000,000 tons of metallurgical grade concentrates for chromium production can be utilized when processes being developed by the bureau of mines are put into productive use.

8. Recommendations for further exploration of carnotite deposits to supply most of the victory needs, for vanadium for tool steels and development of methods for vanadium recovery.

9. The reports recommends that congress utilize the analysis of the committee on northwestern phosphates and the construction of such a plant as may be proposed for the war effort for the service of the farmers of the west.

10. In regard to the electric power needs for processing and fabricating minerals for war purposes, and to give proper consideration to the needs of the states in safer areas behind the mountains, as well as the needs of the coastal states, construction of 17 power projects offering 1,440,000 kilowatts of installed capacity and a maximum total annual production of 10,190,800,000 kilowatt-hours is prooosed. Both steam and hydro plants are listed at an estimated cost of $350,603,000, and would result in self-liquidating returns within 40 years.

The report stated that all of the hydro-electric projects proposed, together with the steam auxiliary plants would contribute to the irrigated agricultural output of the west necessary to meet war needs for food and fiber and would also aid in maintaining the stability of the west in the post-war period.

"The measures I have suggested under the heads of mineral development and power for the west," said Secretary Ickes, "would do something to put individuals and small companies into action for the war and for a few years afterwards."

In the breaking down of the states as related to this extensive program of mineral and power developments, Arizona is credited with:

Exploratory work on copper deposits in the Verde, Globe, Pioneer, Miami, Mineral Creek, Ajo, Silver Bell, and Warren districts.

Construction of a milling plant to produce 240,000 long tons of manganese metal at Artillery Peak, at Parker dam for 30,000 tons.

Mining of 3,000,000 tons of manganese ore in the Artillery Peak district, and 100,000 tons in the Parker dam district.

Power project at Bridge Canyon, Colorado river, Ariz., of an ultimate 600,000 kilowatts capacity. Present cost of construction, including lines and substations is $173,000,000.