ROLE OF THE DEPARTMENT OF THE INTERIOR IN ECONOMIC MOBILIZATION

16 May 1952

CONTENTS

Page

INTRODUCTION--Brigadier General J. L. Holman, USA, Deputy Commandant for Education, ICAF..... 1

SPEAKER--Honorable Richard D. Searles, Under Secretary of the Interior..... 1

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Honorable Richard D. Searles, Under Secretary of the Interior, was born in Cedar Rapids, Iowa, 6 January 1906. From 1929-1940 he was with the Fidelity and Deposit Company of Maryland, Baltimore, Maryland (Chicago Manager, 1936); partner Air-Safe Aeronautical Company, Phoenix 1945-1946; president Southside Sand and Rock Company, Arizona, 1948-1950. Mr. Searles is owner of Circle S Ranches, Scottsdale, Arizona. From 1948-1951 he was president of Salt River Valley Water Users' Association, Salt River Power District, largest distributor of power in Arizona and third largest reclamation project in the United States. He has been Under Secretary of the Interior since 1951.

ROLE OF THE DEPARTMENT OF THE INTERIOR IN ECONOMIC MOBILIZATION

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GENERAL HOLMAN: Our lecture this morning, gentlemen, is devoted to another of our executive departments of the Federal Government having the major responsibility for economic mobilization--the Department of the Interior. We are greatly honored and privileged to have as our speaker the Honorable Richard D. Searles, Under Secretary of the Interior. Mr. Searles has had a distinguished career in business and in the Government. He has concerned himself very actively with the conservation of our natural resources.

We are certainly honored to have you with us this morning, sir; and we extend to you a hearty welcome to the college.

SECRETARY SEARLES: Thank you, General.

Gentlemen, although the request to come over and talk with you was for a certain length of time, I hope you will not expect me to stick closely to it. I will more or less try to stay on the subject or subjects that pertain to your work.

I hope that we are welcomed by all the forces here, inasmuch as we have returned the Corps of Engineers back to the Army. I did enjoy having it for four or five days, however.

In the first part of my talk I will discuss somewhat the pre-Korea development work of the Department. Then I will discuss the subsequent work that it has been doing. Then I will comment on its future plans.

In ordinary times the Department of the Interior is that agency of the Government which is chiefly responsible for this country's major efforts in the conservation and development of our natural resources. The inauguration of an intensive defense mobilization program, like the one in which the Nation is now engaged, does not therefore bring a sharp break in the work of this Department. The added responsibilities which such a program places on the Department are primarily a matter of putting increased energy and emphasis on operations which have long been in process.

Even in times of undisturbed peace, the Department is concerned with making certain that the country's fundamental resource base shall be able to provide an adequate yield for the demands of a highly industrialized, constantly expanding, national economy. To carry out those purposes, the Department's primary objectives are principally these:

1704

1. To discourage the wasteful exploitation of resources.

2. To encourage the most efficient utilization of those resources.

3. To assure development adequate to meet the requirements of the national economy and national security.

4. To maintain productive capacity for future generations.

5. To promote an equitable distribution of benefits from nationally owned resources.

In carrying out these objectives the Department is organized so as to deal with three major resource programs: water and power development, public land management, and mineral resources.

Thus there is one member of the secretariat in charge of the agencies concerned with water and power development. At present this area is under my jurisdiction as Under Secretary. Ordinarily it is under an assistant secretary, but at the present time we are a bit shorthanded. Important agencies in this group are the Bureau of Reclamation and the Bonneville, Southwestern, and Southeastern Power Administrations.

The Bureau of Reclamation is closely concerned with river development programs in the 17 Western States, including irrigation, power development, provision of municipal and industrial water supplies, recreational facilities, and the enhancing of flood control and navigation. In that connection I might remark that the Department is responsible for sale and distribution of electric power from all Federal dams, including those built by the Corps of Engineers.

The Bonneville Power Administration markets power in the Pacific Northwest from the great Bonneville Dam project of the Corps of Engineers, and from the Columbia Basin project, which includes Grand Coulee Dam, of the Bureau of Reclamation. Under the Bonneville Project Act of 1937, and other recent legislation, the administrator is directed to build transmission lines in order to encourage the widest possible use of the power generated, to prevent its monopolization by limited groups, and to make the power available for sale to existing and potential markets. The legislation also directs that preference and priority be given to public bodies and cooperatives, to make certain that the facilities shall be operated for the benefit of the general public. This particular phase gets us into considerable difficulty in the way of criticism at times, to the point where we are called socialistic. But actually we are operating the law as it was set up by Congress, which goes back as far as 1906.

This power is vital to the defense aluminum program. In 1951 sales to aluminum and other industries accounted for over 47 percent of the administration's total revenues, and the aluminum produced by interruptible power alone during the first two years of the defense production program will amount to some 170,000 tons. The Columbia River power system ranks second among power systems in the United States in volume of sales and has the lowest average rate per kilowatt hour sold.

Another assistant secretary supervises the Department's agencies which deal with management of public lands--the Bureau of Land Management, National Park Service, Fish and Wildlife Service, and Bureau of Indian Affairs and also has jurisdiction over our territories. The use that is made of our still vast public domain depends largely on the programs that are carried out here. Problems to be dealt with range from soil erosion to timber cutting, from stream pollution to restoration and maintenance of range land.

A third assistant secretary has general supervision over the Department's work in respect to mineral resources. Regular activities here are carried out by the Geological Survey, the Bureau of Mines, and the Division of Oil and Gas. The Geological Survey, which is one of the Government's principal fact-finding agencies, is responsible for geologic mapping, for preparing the National Topographic Atlas, and in general for determining the Nation's reserves of water, minerals, and metals. The Bureau of Mines is concerned not only with the promotion of mine safety, but with extensive research into the mining, the preparation, and the use of various minerals, and especially with research work.

What all of these activities in these three great resource fields add up to, in ordinary times, is a broad gauge, continuing effort to husband and to develop our national resources for the common good. Conservation no longer implies a simple effort to lock things up and put them away for future use. As it is practiced nowadays, it means doing everything possible to make certain that our great resource base makes its best possible contribution to the national well-being, both today and in the years to come.

When the Second World War began, the Department's activities were sharply affected. The watchword then was all-out war. Consequently, all departmental activities which were not immediately and directly concerned with this goal were more or less shelved. The desired end then was to get an immediate expansion of production--of electric power, of needed minerals, and of the products of soil, prairie, and forest--and long-term considerations had to wait.

Today the situation is a good deal different. For one thing, there is a great deal less slack in the economy now than there was in

1706

the fall of 1941. Then we had much greater reserves, in such things as mineral and electric power capacities. When the Korean crisis came, we had a much larger productive capacity in being and we were making far greater demands on it. The reserve capacity which could be quickly called on for an all-out effort, in consequence, was proportionately much smaller in the middle of 1950 than it was at the end of 1941. This was especially true of electric power.

Another point to bear in mind is that today we cannot shelve the long-term considerations, as we could in 1941. We are not now in an all-out effort. Rather, we are in a high-tension situation that may go on for years, with our mobilization effort resting heavily on an active civilian economy.

The result is that we cannot make the sharp distinction between military and civilian needs which we were able to make in the midst of the last war effort. As we meet the immediate needs of the present, we have to develop and expand the underlying economy so that it can carry this or a greater load 5 years from now, 10 years from now, perhaps even for a generation.

In other words, the job of preserving and expanding the great productive resource base of America is an integral part of our mobilization program. If it is slighted or ignored, the defense program itself will ultimately be affected. A vital part of the job right now is to conduct our affairs so that America becomes progressively stronger and more productive. To meet the added responsibilities which the defense effort has brought, it has been necessary to expand the Department's facilities for dealing with our principal natural resources.

To this end the President has delegated to the Secretary of the Interior certain duties which arise under the Defense Production Act. These have to do with minerals, electric power, solid fuels, petroleum and natural gas, and fisheries. As a result, there have been set up under the Secretary of the Interior five defense agencies, as follows:

1. The Defense Minerals Exploration Administration.

2. The Defense Electric Power Administration.

3. The Defense Solid Fuels Administration.

4. The Petroleum Administration for Defense.

5. The Defense Fisheries Administration.

To a large extent these agencies have been built around a nucleus of personnel and experience already existing within the Department.

Extensive use has been made of key personnel brought in on a temporary basis from private industry; it goes without saying that the skill and technical abilities of these men from our Department and from industry have been welded together very satisfactorily.

I believe that you will get a clearer idea of the way in which defense needs are met if, instead of analyzing these emergency agencies one by one, I discuss the broad resource fields which they cover, showing how cooperation between these emergency agencies and the old-line agencies in the Department is being applied to enable the country to meet the demands of this mobilization period.

Let us begin with the general subject of electric power and with the water-development operations which are inseparably connected with it.

Meeting our emergency and long-term requirements in these fields is largely a responsibility of the Defense Electric Power Administration (DEPA), which is the emergency agency established by the Secretary of the Interior under powers delegated by the President under provisions of the Defense Production Act of 1950. The over-all purpose of the DEPA is the mobilization for the defense effort of the electric utilities of the United States, both public and private. In this task, the agency represents some 4,000 private and public electric power utilities, including rural electric cooperatives, which have a total worth of approximately 25 billion dollars. That indicates actually what a large job it has been to put all this together.

In broad terms, it is up to the DEPA to analyze the Nation's power needs and resources; also to formulate and promote an electric power expansion program which will meet our defense and essential civilian requirements for electric power.

It must see to it that materials and equipment to complete that program are obtained. Where shortages occur, it must allocate electric power where it is most needed, especially in the Northwest area, and establish priorities in the use of electric power. It must also make recommendations to the Defense Production Administration (DPA) in connection with expansion aids provided under the Defense Production Act of 1950, such as Certificates of Necessity for accelerated tax amortization.

This agency operates under an administrator--Mr. James F. Fairman--who is on leave as vice-president of the Consolidated Edison Company of New York and who has done a very excellent job. Its two principal units are the Power Supply Division and the Materials and Equipment Division; it is served by an advisory council, appointed by the Secretary of the Interior, consisting of some 30 executives of leading electric power systems, including both public and private utilities.

1708

Some idea of the magnitude of the load which this agency must carry can be gained from the fact that the electric power expansion goal recently announced is 32 million kilowatts of new generating capacity for the next three years. You may recall that the total for the industry up to 1949 was approximately 52 million kilowatts. So in the next three years we expect to build nearly 80 percent of what the industry has built in its entire history. This will, on completion, give class I utilities a total capacity of 107 million kilowatts. Class I utilities constitute about 95 percent of the industry.

This program involves an expansion in capacity of some 9 million kilowatts during 1952, 11 million more in 1953, and 12 million more in 1954. In terms of dollars, the electric power industry is expanding faster than any other in the country. The cost of new construction during this year is estimated at nearly 4 billion dollars, or 20 percent more than last year.

I want to impress on you the great size of the effort which this expansion program calls for. During 1951 the electric utilities added approximately 7 million kilowatts of new generating capacity. That is the largest increase in any single year on record, but it is far less than the yearly increases which must be made under this program. The substation capacity which must be added this year is a third more than was erected in 1951. Transmission line construction planned this year is equivalent to stretching a wire entirely around the earth at the equator and then adding 5,000 miles more. Yet the plans for 1953 are even greater.

This increase in the electric power supply program has been taking place in the face of numerous material problems. Since 1922 power consumption in this country has gone up 3.6 times as fast as the gross national product. Hence a goal of a 40 percent power expansion compared with a 20 percent expansion of industry during the emergency program was in no sense an inflation of electric power requirements. Nevertheless, we did have difficulty in persuading the mobilization officials that the Nation really did need that much added power.

In addition, while this argument was going on, considerable difficulties were experienced in making the Controlled Materials Plan work. When we got allotments for the power industry, a certain percentage of the tickets could not be cashed. In the third quarter last year, the power suppliers lost thousands of tons of structural steel which had been allotted to them.

As a result power plant construction was delayed and we are going to pay for it this December. Plants that should go on the line this December will not come into service until next spring, because the manufacturers didn't get the structural steel in the third quarter last year.

It is gratifying to note that there seems to be a keener awareness in mobilization circles of the critical importance to the defense effort of electric power than was the case earlier in the program. I might say that, although we have had criticism, throughout the entire program on mobilization the DEPA as a whole has done a remarkable job. This is evidenced by submission of the Morehouse Report to DPA, by recommendations of the report of the Joint Congressional Committee on Defense Production, by the adoption by DPA of the 32 million kilowatt goal for the next three years, and by the appointment by DPA of an electric power coordinating committee with Administrator Fairman as chairman.

Although it involves only one of the fields in which electric power is vital to our defense program, the production of such an important metal as aluminum directly reflects the extent to which we rely on electric power to meet our emergency needs.

Since Korea, the aluminum industry has added 50,000 tons of primary capacity. This year an additional 415,000 tons is scheduled and next year 197,500 more tons are planned. It takes from nine months to two years to bring an aluminum plant into production, depending on whether it is a plant to make aluminum or an alumina plant. During the first quarter of this year, new aluminum facilities in Texas and Louisiana went into production, and the expectation is that in the immediate future we shall realize additional production in those states as well as in Wenatchee, Washington.

It takes inexpensive electric power to make aluminum on the scale we need, and the growth of the aluminum industry is directly keyed to the growth in our ability to put low-cost power on the line. Actually the production cost of an aluminum ingot is about one-third of the cost of the power involved. Just incidentally, increased production of aluminum in turn helps the power industry. Because of the expansion which has already taken place, power suppliers have been able to get more aluminum for conductors to replace the copper which has not been obtainable.

An important part of this Nation's power supply is the power generated by federally constructed dams on the Nation's rivers. This is the area for which the Bureau of Reclamation has large responsibility; and since the Korean emergency began, the Bureau has made an all-out drive to increase the generating capacity of our western rivers.

By installing additional generating capacity at existing dams and by expediting construction of new multiple-purpose structures, the bureau has placed on the line, since June 1950, 1,130,300 kilowatts of additional hydroelectric power. This is roughly the equivalent of another Hoover Dam power plant.

I recently returned from Boulder City, where I participated in a ceremony placing another 82,500 kilowatt generator on the line. Another generator of like size will soon be put in service, raising Hoover's capacity to approximately 1.25 million kilowatts. This production is second only to Grand Coulee, where the addition of more than half a million kilowatts within the last two years has raised the rated capacity of this greatest of all hydroplants to 1,974,000 kilowatts. As a matter of fact, this rated capacity is far exceeded on a regular production basis. On 31 December 1951 the turbine gates were opened wide and a maximum output of 2,226,000 kilowatts was reached. That is enough power to supply two cities the size of Chicago.

Grand Coulee and Hoover are not alone. Shasta and Keswick Dams and power plants on the Sacramento River are adding 454,000 kilowatts to the power supply for the important war-industrial area in central California. A third central valley hydroplant at Folsom Dam, now under construction by the Army Engineers, will bring in 162,000 kilowatts of additional capacity. Completion of this project is hoped for by late 1954.

Down on the Colorado River the bureau last year completed Davis Dam, with 225,000 kilowatts capacity. As part of the Columbia Basin development, the bureau has under construction the fourth largest concrete dam in the country, Hungry Horse, whose hydroplant will have 285,000 kilowatts of capacity and whose storage reservoir will have an important effect on downstream installations, such as Grand Coulee, and which will probably increase our whole capacity on the river by 400,000 kilowatts through those downstream benefits.

Now on the drawing boards, and before Congress for authorizations, is the great Hells Canyon Dam on the Snake River, which will be nearly as high as Hoover Dam and slightly under it in installed power capacity. Unfortunately, it does not now appear likely that this project will be approved this year, and the availability of that power potential may be pushed back another year.

The irrigation works which are associated with multipurpose dams are of direct importance to the emergency program. In the last war it was found that the greatest and most dependable agricultural production in the Western States came from the irrigated areas. The more food and fiber that can be produced in the West, for western use and for overseas transportation without the necessity for a transcontinental haul, the less the strain will be on our transportation system.

As a result, the Bureau of Reclamation has done what it can, while making a minimum demand on scarce materials, to complete the irrigation phase of its reclamation projects. Within the next few days the first water will flow by gravity onto lands of the Columbia Basin project.

Ultimately, this will bring over a million acres--an area the size of the state of Delaware--into farm production.

In all Bureau of Reclamation operations, the use of critical materials is held to a minimum. These activities in regard to water and power are of great importance, not merely to meet the demands of the defense program, but to expand the base on which American economic strength must rest.

Of equal importance is the work which is being done in the field of our mineral resources. This has a direct connection with the effort to produce more electricity and make better use of our water resources, simply because in all of these areas the first essential is a comprehensive set of physical facts. Our economy requires an abundance of fuel, of hydropower, of water, and of minerals. To get such abundance, a long-range program involving many fields of science and engineering is necessary. We have to know the areas of water scarcity and plenty. Minerals investigations must go on continuously. Steps must be taken to insure adequate minerals production and at the same time to prevent waste. For all of these activities, accurate topographic and geologic maps are vital.

Obviously, in a defense emergency like the present, there must be a sharp rise in finding and using our natural resources. If the supply spigot is already wide open--which was the case when the Korean emergency developed--the only way to step up the flow is to increase the size of the spigot, use larger-diameter piping, and find additional reservoir capacity. In substance this is what the Department of the Interior is trying to do; and the fact-finding instrument on which its endeavors are grounded is the Geological Survey.

Just as it takes time to expand basic industrial capacity, so also it takes time and effort to expand the exploration and development of new fuel, mineral, and water resources. The proposed San Juan copper project in Arizona, which is about the largest one we have left in the country and was discovered by the Geological Survey, is indicative of the general work that it performs in its service for the country. This mine is being opened by the Magna Copper Company.

In ordinary times the staff scientists and technical personnel of the Geological Survey study mineral deposits, to determine their geologic character and mode of occurence, and make tests to determine the potential usefulness of such deposits. They engage in systematic mapping and studies of mining districts to extend or refine geologic data, to encourage exploration, and to serve as guides in extending known districts or in finding new deposits. They perform geologic mapping to unravel geologic structure and to provide data on regions hitherto unproductive but deemed promising. As guides to prospecting,

1716

they study factors that control mineral deposition and ore concentration, and they make nationwide commodity studies to get a comprehensive picture of actual and potential resources of every major commodity.

Since Korea it has been necessary to put in an emergency program. Under this setup our geologists have a number of added tasks, including such important ones as the following:

1. To provide basic data on the geology of, and to appraise the potential domestic and foreign reserves for, each mineral commodity involved in the production expansion program; to anticipate changes in future supply; to call the attention of the programming authorities to potential sources not now utilized; and to indicate submarginal material that might be made available in a war economy.

2. To prepare, in conjunction with engineers of the Bureau of Mines, a complete and authoritative review of the supply-demand situation for each commodity; and to keep in daily contact with ever-changing requirements. These basic data are furnished to the Munitions Board for use in their determinations.

3. To consider, in the light of available information, each application for government loan, procurement contract, and so on, received from industry, and to determine the merits of each application.

4. To make spot examinations, map geologically, sample, prepare reports, and take such steps as are necessary to estimate the specific reserve potential of each property for which loans are requested, determining how it meets the needs of the current expansion program.

5. To provide data on ground and surface water supplies, including such quality-of-water facts as may be pertinent.

Naturally, this is an emergency program keyed to relatively short-term production. That is as it should be; this emergency program has a high priority and much of our regular work has been reoriented to meet it. But an emergency program will not help much in providing the raw resources that will be needed in the postemergency period, or even in a long emergency. Right now we are, so to speak, drawing on the principal saved for a rainy day. If we don't put this back, in the form of new data and new potential mining districts, we can eventually overdraw our account and have no balance.

It is the long-range program that provides the basic elements needed for steady economic growth and for future emergency efforts. This seeking out of basic data, on the basis of carefully planned investigations over many years, is the only important source of information of its kind available to the Government.

Our plans for the future must necessarily place long-term needs foremost.

Closely allied with the work of the Geological Survey is the work done by one of our emergency agencies, the Defense Minerals Exploration Administration (DMEA). Government may provide the maps and other data on which new deposits of essential minerals can be discovered, but it is pretty largely up to private firms or individuals to find the minerals. The DMEA was set up to give government assistance to the work of discovery.

During the last war few private companies maintained normal exploration projects and reserves were badly depleted. After the war there was not enough incentive to bring ore reserves up to normal levels. As a result, dangerous shortages exist.

It should also be realized that whereas in 1940 there were 7 metals which were considered strategic, there are now about 50 metals and minerals on the strategic and critical list of the Army and Navy Munitions Board.

Obviously, then the Government must encourage the discovery and development of new deposits of these metals and minerals in the United States and territories. By helping miners, mine operators, or other individuals to finance the cost of searching for these new deposits, the Government hopes to expand our supplies of critical materials. Under the Defense Production Act of 1950, as amended, money and authority were voted for the minerals exploration assistance program which DMEA is conducting. Ten million dollars were allocated for this work in fiscal 1952, with the assurance that more money will be available if needed. To date the Government has obligated about 8 million in contracts whose total cost is more than 13 million dollars.

Under this program, financial aid can be provided ranging from 50 to 90 percent of the total cost of explorations by private companies. The money so contributed is repayable to the Government on a royalty basis over a ten-year period, if a discovery is made and production results. There have been more applications for this particular program than any other. People are listing everything from their wife to their pig as assets in running up this 50 to 90 percent.

The success of this program to date cannot be measured by the number of discoveries. The program is little more than a year old and its lifetime, so far, includes one of the worst winters in the principal mining areas in many years. But more than 200 exploration contracts are now in force, work has been speeded up with the coming of spring, and 35 projects now show indications of discoveries which can be officially certified. So far, four discoveries have been certified: one in Arkansas for manganese, two in North Carolina for mica, and one in California for tungsten.

1714

It might be noted that individual prospectors and small concerns play a large part in this job. Large "strikes" may be made, but one of the primary aims of the DMEA is to encourage the small operators to make substantial contributions to this effort to add to our Nation's supply of essential metals and minerals.

All of this work on minerals ties in closely with the programs of the Bureau of Mines. This bureau is described by law as a bureau of mining, metallurgy, and mineral technology; its purpose is to promote safety, health, economy, efficiency, and the conservation of resources in the mineral and allied industries. To do this, it engages in scientific, technologic, and economic research covering the whole field of metallic and nonmetallic minerals and mineral fuels.

At the close of the last war, the bureau emphasized replenishment of our mineral reserves which had been depleted during the war years. Exploration projects outlined numerous deposits of important metals and minerals, some of them marginal and submarginal, but some of commercial grade and extent. Ore dressing and metallurgical research pointed toward economic use of low-grade and complex ores. The technique of producing the new, light metal, ductile titanium, reached the point where industry was ready to take over; and the process for producing ductile zirconium was developed further.

At the request of the Munitions Board, the bureau began an extensive survey of the Nation's known minable resources of coking coal. The synthetic liquid fuel studies, using both coal and oil shale as raw materials, which had been begun during the war, were pushed vigorously in laboratories, pilot plants, and demonstration plants. At the same time there was intensified research aimed at increasing the proportion of the oil and natural gas that can be recovered from the ground. Our files indicate that we can produce petroleum products out of coal at approximately the same price as they can be taken out of the ground by means of oil wells.

Meanwhile, government agencies concerned with stockpiling, foreign assistance programs, and national defense called increasingly on the bureau for statistical and economic information on production, consumption, and stocks of various mineral commodities, both foreign and domestic. At the same time the mineral records of the War Production Board were turned over to the bureau and the work of cataloging was begun. During fiscal year 1950 the economic and statistical studies were tied in more closely with scientific and technological research; and the bureau's operations were decentralized by the establishment of eight regions in the continental United States and Alaska, plus a ninth, known as the Foreign Minerals Region, to supervise the bureau's activities in other parts of the world. Actually, both the Geological Survey and the Bureau of Mines have operations in almost every country in the free world at the present time.

1725

The advent of the Korean crisis called for shifts in emphasis rather than for drastic changes in the bureau's work. Its efforts were concentrated more heavily on the strategic and critical metals and minerals and upon special-purpose fuels. Also, as manpower shortages appeared as a possibility, the bureau bore down more heavily on its long-time task of reducing accidents in the mines and in the plants of the mineral industries.

The same minerals are required for a defense program as for a vigorous peacetime economy. Hence there is a continuing importance to many of the bureau's regular programs. An example is its work on the extraction of manganese from open-hearth steel furnace slag, a waste material. The technical feasibility of this process has been shown, and the bureau now is working with the steel industry to make it economic. It is also conducting pilot plant experiments which, it is hoped, will make it possible to upgrade our large but low-grade manganese deposits to meet metallurgical requirements.

We tried to get the steel industry interested in putting money into such a plant, but we were unable to do so. We did get an oil man interested, however, in the recovery of manganese from slag. If it turns out to be commercially feasible, it will reduce our mining needs by about one-half.

In the same way the bureau's studies aimed at the utilization of low-grade iron ores, important from long-term peacetime considerations, are of especial importance in the midst of the defense program; so are the bureau's efforts to find economic processes for producing aluminum from materials other than high-grade bauxite, its research in the primary and secondary recovery of petroleum, and its constant search for more economical, more efficient, and safer mining methods. Indeed, virtually the only program the bureau has dropped since Korea is its mineral exploration work, and in this field its engineers are advising the DMEA on the merits of exploration projects for which government aid is being sought.

Down through the years the bureau has of course developed a wealth of information concerning our solid fuels resources, the most important of which is bituminous coal. This contributed a solid foundation for the action programs in respect to solid fuels which have been developed since Korea. Primary responsibility for these programs has been lodged with another of our emergency agencies, the Defense Solid Fuels Administration (DSFA).

It is important to recognize at the outset that coal remains a prime factor in our industrial economy. It is not only the main single source of our fuel energy, but it is indispensable to other defense mobilization programs. Because of the dramatic expansion of oil and

gas production in recent years, the continuing importance of our coal supply in providing heat, light, and power is sometimes obscured. Therefore it should be emphasized that an expanding supply of coal is basic in any sound program of economic mobilization.

Demands for coal, for example, are directly related to such important industries as electric power and steel. As these industries expand, our supply of coal must increase proportionately.

Coal now supplies about 75 percent of the fuel needs of our electric utilities; almost 80 percent of all new electric plants are designed to burn coal. Because of other pressing needs for oil, coal is being increasingly required to replace oil as a fuel source in those utilities which are equipped to burn either fuel.

The record expansion of our steel industry has also led to record demands for metallurgical coal. While high-grade coking coal is the most limited of our coal resources, known reserves are adequate for the foreseeable future; the output is being rapidly increased to meet the new requirements.

There is also a rising need for the many coal chemicals which are recovered during the coking operation. Many of these are of strategic importance in the defense program.

In addition to these demands, it must be realized that we must help meet the coal requirements of the free nations of western Europe. In 1951 the coal imports of these countries increased from the 1950 rate of a few million tons to more than 32 million net tons. Every effort is being made to increase western Europe's coal output, but it appears that these countries will need American coal for some years to come as part of their essential supply.

To meet all of these needs, the DSFA has developed programs to assure that the industry is adequately supplied with controlled materials, machinery, and equipment. To date more than 150 coal mine construction projects, costing about 165 million dollars, and some 40 coke oven construction projects, costing over 200 million dollars, have been authorized.

Financial incentives to expand solid fuel facilities for mobilization needs are furnished in the form of certificates for rapid tax amortization. Through April 18 the DSFA had recommended and DPA had approved tax amortization certificates for metallurgical coal projects totaling about 60 million dollars. Certificates for coke projects approved through the same date totaled about 213 million dollars.

Running hand in hand with these activities are the operations of another emergency agency set up to insure adequate supplies of another

source of industrial energy of equal or even greater importance--the Petroleum Administration for Defense (PAD)--which is concerned with oil and natural gas.

This agency, created 3 October 1950, by the Secretary of the Interior under authority delegated to him by the President, has undertaken activities of two sorts. It has taken special actions to meet a series of unusual crises; it has also taken continuing actions to insure that the over-all petroleum supplies of the free world are kept in balance with military and essential civilian demands.

The first special problem encountered was to make up a shortage of military aviation gasoline. A small staff of specialists, working closely with the Department of Defense and with industry, managed to assure sufficient supplies. But that is a problem which so far has refused to stay permanently solved. Thus it was necessary for PAD last October to issue two orders designed to boost aviation gasoline supplies.

One prohibited the use of alkylate and other blending agents in anything but aviation gasoline and required the use of available raw materials to produce alkylate at PAD direction. The other required the use of not less than 4 cc. of tetraethyl lead in each gallon of civilian domestic aviation gasoline of the higher grades, and not less than 4.6 cc. of the lead in each gallon of the higher grades for export.

Perhaps the most serious crisis which PAD had to meet developed in April 1951 when a brief strike of workers at the Abadan refinery in Iran, the world's largest refinery, lost some 7 million barrels of petroleum products to free-world trade. It was obvious that the Iranian disturbances were not to end with the strike, so PAD undertook to put the petroleum industry in position to act quickly in the event of a new crisis. That crisis came when the dispute over Iranian nationalization of its oil was climaxed by the shutdown of the Abadan refinery and the closing off of the flow of Iranian crude in June 1951.

PAD received approval of a voluntary agreement among 19 United States oil companies engaged in foreign operations to cooperate in solving the supply problems thus created. Transactions arranged within the framework of that agreement so far have involved 43,232,200 barrels of crude oil and products, about one-third of what would have been Iran's output during the period of the working of the agreement.

In addition to major crises such as these, PAD has had to go into action to meet a number of minor spot shortages in oil and gas.

Its continuing programs have involved constant efforts to get materials to enable the oil and gas industries to expand so as to meet

1718

the increased demands brought about by the mobilization program. These efforts have succeeded in forestalling added supply problems. The quantities of materials obtained have not, however, been sufficient to meet the projected needs in building an adequate reserve capacity in the event of a more stringent emergency.

Thus far the agency has obtained enough steel for only one segment of the industry--the production of crude oil. Other portions of the industry--refining, transportation, and storage--have been somewhat hampered by lack of materials in reaching programmed emergency goals. Crude oil reserve capacities are below what they should be for national safety in the event of all-out war.

Consequently PAD has proposed and the DPA has approved a program for essential petroleum expansion. Whether or not the program can be realized depends entirely on whether or not the materials for it can be made available.

Many of the resources needed in our Defense program are to be found in our public lands. These include oil and gas, in underground reserves and in tremendous reserves of oil shale, as well as coal, uranium, sodium, phosphate, and other minerals. Responsibility for our public lands and the use of their resources rests with the Bureau of Land Management, whose activities since Korea had been geared to all-out economic mobilization of public land resources.

The area for which this bureau is responsible is a large one. It includes nearly 185 million acres in the States and 290 million acres in Alaska. With its responsibility for mineral leasing on all federally owned land, and on lands in which the Government retains mineral rights, the bureau has a total of nearly 780 million acres to administer with respect to mineral disposal.

To an extent the use that is being made of these resources during the defense program is reflected in the rise in the bureau's dollar receipts. Derived primarily from oil and gas leases, the bureau's "income" shows a steady climb--from slightly less than 14 million dollars in 1946 to more than 49 million dollars last year. Just incidentally, this bureau returns to state and Federal treasuries nearly 6 dollars for every dollar appropriated for its operations.

In this connection, attention should be given to the immense reserves of oil which exist in the offshore oil lands. These reserves have recently been the subject of extended discussion both in Congress and before the Supreme Court.

Proved reserves in the California and Louisiana offshore oil lands currently amount to more than 477 million barrels. This is hardly

a drop in the bucket, however, compared with the theoretical reserves in those submerged lands--the reserves, that is, which we have reasonable grounds to anticipate can be added to our assets, once it becomes possible to exploit them. According to the "Oil and Gas Journal" for January 1951, these amount to no less than 15 billion barrels in all. When that is compared with current United States consumption of slightly less than 7.5 million barrels a day, the size and value of this national asset can be comprehended readily.

Oil and gas leases account for nearly 80 percent of the revenues collected by the bureau last year. It should be emphasized, however, that other minerals of vital importance are to be found on our public lands. Among these is phosphate, which is essential to many war industries, but it is of even greater importance as a fertilizer. About 60 percent of the Nation's phosphate resource lies largely on public lands in the four western states of Idaho, Montana, Wyoming, and Utah. So far this western deposit has been little exploited. Its potentialities are immense, however, and development hinges chiefly on low-cost power from pending and building hydroelectric plants in the area.

Proper development of this deposit means, in the end, a more abundant food supply. The Federal range land is already an important source of meat, hides, and wool; and a program recently launched by the bureau to rebuild the western range is of direct importance to the defense economy. It should also be noted that public lands managed by the bureau constitute a very important source of timber. The Nation's greatest single reserve of timber is the 2.5 million acres of Douglas fir in the O and C lands of western Oregon, which is steadily being brought to greater productivity. In addition, the bureau manages, principally for fire protection, 125 million acres of forest and woodland in Alaska and is finding an important new source of lumber through salvage operations on certain western public domain timberlands which have suffered damage through windstorms and fire.

There is one other area in which an Interior Department agency undertakes to meet an essential defense need. The Defense Fisheries Administration (DFA), which is largely built around trained personnel from the Fish and Wildlife Service, has been set up to make certain that our fisheries resources make their proper contribution to our food supply.

This agency undertakes to assure that the fishing industry gets the material and equipment it needs to maintain adequate fish production, and members of the administration serve on 14 commodity and equipment requirements committees of the NPA. The agency also works closely with the Office of Price Stabilization, the Wage Stabilization Board, and the Salary Stabilization Board on matters affecting the fisheries

industry, and consults with the Selective Service System, the Department of Labor, and the military on fisheries manpower problems.

The DFA is probably the smallest defense agency in the Government. But it serves an industry which makes a significant contribution to our national economy; it has done an important job in taking preventive action to head off emergencies and in giving spot assistance in the obtaining of necessary priorities and materials. Very little work has been necessary here, except to see that the supply of tin for cans has been adequate and to secure some international fishing agreements.

The whole mobilization program has been a very difficult one to handle. It started out on the basis of maintaining a normal civilian economy while building up for a mobilization program in what is sometimes called a war effort. It is pretty hard to sit at the table and discuss these things when they are not considered a war effort and when you know you are actually in the effort of the size of a large-scale war at the time, especially when the Navy is using more ammunition now than it did in the World War II period, in what is considered a peacetime operation or a minor skirmish. That in turn has made it very difficult to get the people of the country to really understand and appreciate the job which this country has at the present time because of the Communist effort, war, or activity.

I think basically the desire to maintain the civilian economy has caused it to be so well done that the complacency of the people has interfered with their understanding of the problems of the military. They don't quite understand the job which you and the country are up against.

I recently returned from a four-week trip to the Pacific. I spent quite a little time with Secretary of the Navy, Kimball. I got a complete understanding of the way it meets its requirements.

I have been very happy to see such unification as you have here in this college; I can fully appreciate the fact, after making the trip which I did, that all of the so-called jealousies and differences between the services are considerably more in the papers than they are in the actual operation of our military partners. That pleased me probably as much as anything I saw.

One other thing that pleased me was the realization that all the men I visited, worked, and talked with during the trip knew what they were doing in Korea, why they were there, why they wanted to be there, and showed very little evidence of not wanting to stay there and do their part of the job which they have. It is very unfortunate that for partisan purposes we find so much glamour given to such things as "Why Korea? Why participate there? Why are we here?"

The discussion today has covered a very wide range of activities. All of them, in one way or another, revolve upon the protection and use of our basic natural resources. Those resources, taken all together, are the base on which our great industrial development rests. In time of peace it is extremely important to maintain and expand that base so that our always-growing economy may have the proper support. In a time of emergency preparations like the present, the importance of that work is greatly intensified.

This is a picture of the manifold activities which such a program involves. What is being done here by the Department and its employees is vital to our national strength in peace and in war alike.

QUESTION: There is a controversy going on as to who should undertake the further development of power at Niagara Falls. I understand there are two bills before Congress at the present time--one to have it undertaken by private capital and the other, under Federal supervision. I would like to hear you discuss the development of that.

SECRETARY SEARLES: That is a question without any political implications. In my opinion the amount of power that could be developed there is relatively small and unimportant. The generation on the American side of the river would be somewhat over a million kilowatts. The whole issue is pretty much over whether it should be a private project with an agency in New York to sell the power, or whether the Department of the Interior should market the power under the 1944 Flood Control Act, as it does with the power from dams built by the Corps of Engineers.

Actually a million kilowatts of generation is the annual addition of power in the state of New York. So that is why to me it is a relatively small item. But with the private utilities coming in, who don't want any public power whatsoever sold in the state of New York, to them it is a major question.

That is the best answer I can give. My own personal feeling is that it is such a small percentage of generation in kilowatts compared with what is used in that area that we ought to get the dams built that we need because they are of very vital importance to the country.

Now, for years the coal industry as a whole has opposed the St. Lawrence River project. I believe that every President since Coolidge has recommended it, but Congress has turned it down because the lobbies have been too strong. For instance, the Mark Hanna Company, one of the big coal operators on the Lakes, used to fight it; but now it is for it. It used to deliver coal from England at Niagara Falls or Buffalo and put coal on the market there competitively with American-produced coal. But we are shipping coal to England now, so that question is pretty well gone.

1722

The people even down on the lower Mississippi feel that the St. Lawrence River project might affect their ports down there. But it is just unfortunate for the country as a whole that we don't look at it from the broad point of view as to what it does for the country.

QUESTION: In our course on utilities, the private utilities field made a pretty good case for the development of private distribution as distinguished from public distribution. They also stressed that private utilities are thoroughly regulated by the Government and could not under current conditions profiteer, shall we say; and in turn that they would take the load off all the taxpayers, which is now placed on all the taxpayers for the benefit of a few. I wonder if you would discuss the question of why the Government should under these conditions keep forcing itself into power distribution rather than turning it over to private industry.

SECRETARY SEARLES: Well, in the "Wall Street Journal" there is carried a statement by Mr. James G. Black, president of Pacific Gas and Electric, the second largest or the largest utility in the country, in which he says that Federal power is no threat to private utilities. I have operated a quasi-public utility in Arizona. Our problems on Federal power and private power are just the same things that arise in competition between U. S. Steel and Bethlehem, or which arise between copper and aluminum. It is simply a matter of competition.

Primarily, so far as the Government is concerned, there is not too much distribution. I presume you mean the transmission of power; the municipalities actually do the distribution. Take the state of Arizona as an example. We have a transmission line that extends from Boulder Dam and Davis and Parker down through the entire state of Arizona and to the border at Douglas. If a private utility had built that line, they would only serve themselves with the power from Federal dams, which were financed by Federal money. But since the Government built the transmission system, the town of Prescott is served. It serves the area around Phoenix through a power district which was formed in 1902. In Cochise County there are five electric districts which are served and take off that line. The city of Tucson is served by a private utility that takes off that line. On down below, the REA takes off that line.

There would not be that equitable distribution of benefits of the Colorado River development if it were a private utility. It would own the transmission line. That would give them a complete monopoly in the state, because that is about probably one-half or better of our power generation.

Again, private utilities can very easily finance and build plants and develop their power, steam or coal, whereas many smaller Federal REA's haven't that opportunity and don't have that financing.

I have been a bureaucrat only about a year and a half, but personally I feel that the point is greatly overdone by the private utilities on the question of the increase of socialism. I think it is rather ridiculous on their part, because public power has done more for capitalism in this country than perhaps, not any one thing, but many things.

In the Grand Coulee area and the Bonneville area, along with Mr. Black's statement is the statement by Mr. James H. Polhemus, president of the Portland General Electric Company, that public power is no threat to them. Public power is about 15 percent, I believe, of the generation out there, including municipalities like Los Angeles, which has had a public body running it now for about 20 years.

Now, a good example is the Hells Canyon Dam. One of the bitterest fights at the present time, if you consider it a fight, is over that. One dam can be built on the river by the Government, and that one dam will provide 400,000 kilowatts at that point, with downstream benefits of 800,000 kilowatts; whereas if you build the four or five small dams which the private power company wants to build, all five dams will provide only 400,000 kilowatts in that area and no downstream benefits.

It is a lot more important to the country and to the whole Northwest to have that 1,200,000 kilowatts than to have only the 400,000 in Idaho. Only Idaho would get the 400,000 kilowatts from the Hells Canyon dam. If those four dams are built by private utilities, we will forever lose that possibility of the additional 800,000 kilowatts downstream. That is a natural resource, and losing it is just like wasting coal or wasting oil. We ought to take advantage of the downstream benefits which one dam will provide but four won't.

QUESTION: Would you outline the areas of responsibility as between the Department of the Interior and the Federal Power Commission (FPC)?

SECRETARY SEARLES: The FPC's job is to approve rates of utilities that have actually been made interstate and not intrastate. It is an awfully fine line of distinction, but that is basically what it does. They don't have any authority over rates within a state unless that particular utility crosses state lines or sells without the state.

Our responsibility affects rates only where we are marketing power. Under the Flood Control Act of 1944 the Secretary of the Interior is charged with marketing Corps of Engineers power at rates approved by the FPC. We don't have any jurisdiction in the rating field outside the rates that we set ourselves on the power we sell.

The Bureau of Reclamation power is not subject to FPC approval. At the present time the recommendation, by both Interior and FPC, is that FPC should either have all that jurisdiction taken out of it as

to approving rates, or that it be given the job of making the rates at the beginning. Our recommendation is that the FPC approval be taken out of the law. Quite a few members of the FPC agree with that. It is a rather involved economic consideration.

Going back to the previous question, as to the Government's approval of rates of private utilities, we don't have any unless it crosses state lines. In many states the FPC has no authority over the approval of rates of private utilities. It is simply a matter of regulation by the state body. There is considerable question in the minds of many people as to whether FPC approval is not much better than approval by state regulatory bodies.

QUESTION: When you investigate and find an economically sound site for a dam, is there any attempt made to get private enterprise interested in building that dam, particularly when you can't get the money from Congress to build it yourself?

SECRETARY SEARLES: I don't know of any case where that would apply. I think, generally speaking, that if there was a private utility to build it, that utility would already have made application for the right and the license from the FPC. I can't offhand think of any particular project which private capital would build in which we are interested.

Of course, when Grand Coulee and Bonneville were proposed, not only was there no private capital came in to build it but they ridiculed the whole operation out there, saying that the power could never be sold. What has occurred is that they could use half again as much power in the next five years. We have had a tremendous power shortage during the current year out there and had a particularly difficult time getting through.

When I was just a private citizen, I heard a lot of these things about the Government and socialism. I suspected that when I came here, I would find that a lot of the people who were running this operation would have long hair and talk about economic considerations. But I found that it is a very well-run operation. I don't know what we would have done for aluminum production today if it hadn't been for the foresight of certain people in building TVA and Bonneville and the Colorado River development.

Many times, if we or the public could look behind the people who were opposing some public development, we would find it was a very small group with very selfish motives. But we have no way of getting behind the scene and seeing who is pulling the levers and causing the objection. In our own operation in Arizona, where there is a small amount of opposition, that thing is true.

If we could break down exactly what the opposition is to the St. Lawrence development, I think we would see that the majority of it comes from selfish interests that are being jeopardized. I don't think that any private outfit would take on the St. Lawrence development. It is going to take between 100 million dollars and 400 million dollars. Also there is the long lead time that is involved, which is about eight years before Hells Canyon will be in operation. There just isn't the private money to finance it.

QUESTION: I wonder if you would take the major recommendations of the Hoover Commission as they affected the Department of the Interior and tell us what, if anything, has been done with regard to implementing those recommendations.

SECRETARY SEARLES: I am sorry, but I can't answer that question very well to you in detail. The major one was to transfer the Corps of Engineers. They recommended that the Bureau of Land Management be transferred over to Agriculture. That has not been done. I am sorry. Though I should be able to answer that question, I can't.

QUESTION: I had the opportunity to visit the power plant at Altoona, Pennsylvania. There are two private dams in that network which are under the operation and control of the TVA network. Most of the private companies in that area are pretty happy about the whole arrangement. They like TVA. They like the power that they get. They had no objection to being integrated with TVA. They haven't had any serious flood problems since the system was completed. I just wonder why we are unable to sell that kind of deal out there in the Missouri Valley. It seems to me that it would be the answer, rather than having a recurring flood situation every year. Why the resistance out there?

SECRETARY SEARLES: The valley out there encompasses about one-sixth of our Nation. I don't know how many states it takes in. There are quite a few divergent views as to what should be done. There are really a great many more problems to it than TVA has.

The question out there also becomes political. But even regardless of what party is involved, or what platform somebody will talk about, what will be helpful at the moment for the immediate purpose, that becomes one problem. Money becomes another problem.

But in time the people in that area will have to realize that they will need to cooperate and get together without the factions within their state in order to make that development possible. They really have to get together even within the county levels and the farm groups even before it can get to the state level or before you can get the states together and then get the Federal Government in agreement with the states.

I personally believe it will be quite a few years before we can get all the different parties and factions together in order to agree on one particular program. They should, but in a democracy it will take time.

QUESTION: Can you tell us something about the current status of the controversy about taking water from the Colorado River for the benefit of California?

SECRETARY SEARLES: Actually it is very involved. I don't know. I have said very little publicly about that, because of the fact that I am from Arizona. But it will be some time before that question can be solved. In the meantime there are about 4 million feet of water a year that flows down the river that is not used. But that is a question that I had probably better stay out of.

QUESTION: You have stated that following Korea an emergency program was instituted for the recovery of minerals. You have further stated that as a result of that since Korea you have uncovered some manganese and tungsten deposits. Hindsight apparently indicates that the Department of the Interior might have exercised more foresight before Korea in that area. Would you please indicate the practical barriers which precluded exercising such foresight on the part of the Department of the Interior?

SECRETARY SEARLES: Legislation and money.--This exploration act is a matching act. We never had any money to do it before. Under the matching act we put up 50 percent of the cost and the prospector puts up 50 percent of the cost of doing this. There wasn't any legislation of that kind by which we could operate.

Now, before Korea we have always continued a very extensive exploration of mining properties, both the Geological Survey and the Bureau of Mines. There is this San Juan copper mine which the Bureau of mines and the Geological Survey have just recently approved, and the San Manuel project, both in Arizona, the two biggest deposits that we still have. It is low-grade copper, but they are the biggest deposits and we are going to have to depend on them.

Prior to Korea the Bureau of Mines and the Geological Survey have always done an excellent job. I am sure that the industry thinks so too. In many cases they have been handicapped for money. They took quite a setback during the war. Also it took some time to get back after the war. I think the record will prove that they have all the foresight in the world, but they just lacked the wherewithal to put this foresight into operation.

QUESTION: One of the issues involved is whether or not to turn over the synthetic rubber plants to private rubber companies. I saw where down in Houston the General Tire and Rubber Company is operating a synthetic rubber plant on a cost-plus-a-fixed-fee basis; the tire company is only getting about 20 percent of that product. I would like to ask a question about the incentive. What incentive is there for them to improve their process or lower their manufacturing cost when the same improvement or lowered cost will go to their competitors?

SECRETARY SEARLES: Well, this question of transferring them back to private industry has been up several times. The last recommendation of the NSRB was not to turn them back at the present time. The only reason for maintaining them is the matter of national security. If you go back in your memory, I think you will realize what the production of our synthetic rubber industry meant to the country when we were suddenly cut off from the supply of natural rubber. We can't possibly be caught in that situation again. There is always the possibility that the development of certain plants--not talking only about rubber--- might not be maintained or operated competitively as actively as they have been under Federal supervision or operation.

I would say that in cases like the one you mentioned there should generally be a desire to keep cost down, for the following reasons: (1) if they are getting 20 percent, that is part of their cost; (2) surely they want to run a good operation; and (3) if they have an opportunity to take it over later, they will want to know how to operate it efficiently. But that is a question for the NSRB or the NSC.

QUESTION: I have two questions. The first is: You spoke of downstream benefits that might accrue from generation of additional power if you had one dam up higher. I wonder if you would elaborate a little bit on that. The second question is: Is the Department of the Interior making or losing money on its power activities?

SECRETARY SEARLES: The upstream dam reservoir capacity increases the amount of water in all these operations from the time the water is spilled. And the reserve capacity of these dams that I speak of would hold that flood water so it could be used downstream. The same thing is true of Hells Canyon. That is where that benefit comes from.

Now, on the question of whether or not we are losing money, that depends on the basis on which the costs are allocated, whether primarily to power or not. We are required by Congress to come out with a break-even.

The subsidy that you hear referred to very often, for instance, in a Federal dam, consists in the fact that part of the cost is charged to navigation and part of the cost is charged to flood control. That is

the subsidy part. That is considered a subsidy by the private utilities, although in many cases they get power from those dams. So if this is a subsidy, as they call it, they get the benefit of it as well.

QUESTION: Last week we were in a coal mine in Pennsylvania. The foreman complained that if he complied with the state of Pennsylvania's safety regulations, he would violate the Federal regulations and vice versa. Is there any coordination between the states and the Bureau of Mines?

SECRETARY SEARLES: The Bureau of Mines doesn't have any authority to enforce regulations. Practically everything it does on safety at the present time is advisory. There is a bill before Congress which would give it some regulatory authority. Whether or not it will be passed I don't know. It went through the House but is still in the Senate. But at the present time what he would be talking about, I assume, is some recommendation that the Bureau of Mines is making, which he said, if put into effect, is contrary to the state law. It is strictly a recommendation.

QUESTION: What is the progress of research toward the utilization of the power in coal without taking the coal out of the ground?

SECRETARY SEARLES: I don't know. I know very little about that. There has been quite a bit of research on it, but I am not acquainted with any definite knowledge that would be helpful in answering your question.

I might mention on this question of public power that one thing I think is lost sight of by private individuals is the fact that a private utility, although it is called a free enterprise, is a free-enterprise monopoly. The utilities are not in competition with anybody else.

Basically, they should make 6 percent on invested capital. That is really the main argument that comes all the way through. There is no desire, so far as I have been able to find out, on the part of any Federal program to put private business out of business. Primarily, it is to develop the resources of the country and make them available to the people.

There is, however, so much water goes down river and does not go through any hydroplant. That resource we have lost forever. Private capital just hasn't the facilities to develop some of the hydroelectric projects that we should have in the country.

I wouldn't go on record as saying that we are always right, but I know very well that we should have further development of public power. Actually private utilities and public power should go hand in hand and sooner or later they will. But there is a lot of prejudice, because

years ago the private utilities had no competition from any source. You can remember the difficulty we were in then. It is hard for people to forget those days, when the utilities ran high, wide, and handsome.

COLONEL BARNES: This brings us to the end of our period, Mr. Secretary. I want to tell you, sir, that you have managed to compress a great amount of information into this talk. I am sure it is going to be very useful to us. On behalf of all of us I thank you for taking the time to talk before the college.

(2 Sep 1952--350)S/en

1730