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STATE DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES
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THE ATOMIC ENERGY ACT OF 1946
An Abstract

Public Law 585 passed by the 79th Congress and approved August 1, 1946, has to do with the development and control of atomic energy by a new Government agency. The Act is a most comprehensive one and is designed to cover all activities connected with production of fissionable materials and their application to production of atomic energy. The Commission, which is created by the Act, has absolute control, subject to Congress and the President, of all such activities. As time goes on, the work of the Commission will affect the well-being of every citizen. Probably the Commission will become one of the most powerful of Government agencies.

These persons engaged in or interested in the mineral industry should be familiar with the provisions under Control of Materials, for under this heading is given the law relating to mineral deposits from which fissionable material may be produced.

The principal provisions of the Act are condensed in the following abstract.

Editor

Declaration of Policy

Purpose of the Act

The major programs are outlined as follows:

(1) To assist and foster private research and development;

(2) To control scientific and technical information and to plan for sharing on a reciprocal basis information concerning the practical industrial application of atomic energy as soon as safeguards against its use for destructive purposes can be devised;

(3) To conduct Government research and development;

(4) To set up a plan for Government control of production, ownership, and use of fissionable material;

(5) To set up a program of administration.

Organization

Atomic Energy Commission

An atomic energy commission is set up; it is composed of five members including a Chairman all appointed by the President. The first members of the Commission are appointed for two years. At the expiration of the two years, appointments are made for five years, except that terms of office of the members first taking office after the expiration of two years from the date of enactment of this Act shall expire, as designated by the President at the time of appointment, one at the end of three years, one at the end of four years, one at the end of five years, one at the end of six years, and one at the end of seven years, after the date of enactment of this Act. The Chairman of the Commission is to receive a salary of $17,500 a year, the other members of the Commission, $15,000 a year. The principal office of the Commission is to be in the District of Columbia.

There is established within the Commission a General Manager appointed by the President at an annual salary of $15,000 a year. The Commission may recommend to the President the appointment or removal of the General Manager.

Administrative divisions of research, production, engineering, and military application respectively are provided for. Each division is to be under the direction of a Director appointed by the Commission who is to receive a salary of $14,000 a year. The Director of the division of military application must be a member of the armed forces. The Commission is allowed to delegate some of its powers, as the Commission shall determine, to each of the divisions except the division of research.

General Advisory Committee

Provision is made for a general advisory committee to be set up to advise the Commission on scientific and technical matters relating to materials, production, and research and development. This committee is to be composed of nine members to be appointed from civilian life by the President. Each member is to hold office for a term of six years after staggering the first appointments over two, four, and six years. The committee designates its own chairman and shall meet at least four times in every calendar year. Compensation to members of the committee is set at the rate of $50 per day for each day spent in meetings or conferences plus all their necessary traveling or other expenses while engaged in the work of the committee.

Military Liaison Committee

There is set up a military liaison committee consisting of representatives from the War and Navy Departments who shall be appointed by the Secretaries of War and Navy in such number as the Secretaries may determine. The members of the committee serve without additional compensation. Close liaison between the Commission and military committee is mandatory under the Act in matters relating to military applications of fissionable material. Provision is made for making written recommendations by the committee to the Commission and if, in the opinion of the committee, the Commission fails to act on such matters as deemed needed by the committee, the latter may refer the action to the Secretaries of War and Navy. If either Secretary concurs, he may refer the matter to the President whose decision will be final.

An active or retired officer of the Army or Navy may be appointed as director of the division of military application at a salary of $14,000 a year less the salary that he is drawing from the armed services at the time of appointment.

Research

Research Assistance

The Commission is directed to "exercise its powers in such manner as to insure the continued conduct of research and development activities" in various specified fields.

Such research is to be done by private or public institutions or persons, all under close supervision of the Commission. The separate fields listed are:

"(1) nuclear processes;

(2) the theory and production of atomic energy including processes, materials, and devices related to such production;

(3) utilization of fissionable and radio-active materials for medical, biological, health, or military purposes;

(4) utilization of fissionable and radio-active materials and processes entailed in the production of such materials for all other purposes including industrial uses; and

(5) the protection of health during research and production activities."

Broad powers are given the Commission in the conduct of research, in financing, inspection, and the dissemination of information.

"The Commission is authorized and directed to conduct, through its own facilities, activities, and studies of the types specified . . . "

Production of Fissionable Material

Prohibition

The Commission is given control of all production of fissionable material, and it shall be unlawful for any person to own any facilities for the production of fissionable material except that authorized by the Commission.

Ownership and Operation of Production Facilities

The Act states that the Commission, as agent of and on behalf of the United States, shall be the exclusive owner of all facilities for the production of fissionable material other than those facilities useful in the conduct of research and development activities in those fields specified under "Research". Also exception is made of facilities which, in the opinion of the Commission, do not have a potential production rate adequate to enable the operator of such facilities to produce within a reasonable period of time a sufficient quantity of fissionable material to produce an atomic bomb or any other atomic weapon.

The Commission is authorized and directed to produce or provide for the production of fissionable material in its own facilities. The Commission may, if it is deemed necessary, make contracts with persons for production of fissionable material in facilities owned by the Commission. The Act states that the President shall determine at least once each year the quantities of fissionable material to be produced under this type of activity.

Fissionable material may be produced in the conduct of research and development activities in facilities not owned by the Commission but which the Commission would control as agent of and on behalf of the United States.

Irradiation of Materials

It is stated that the Commission and persons lawfully producing or utilizing fissionable material are authorized to expose materials of any kind to the radiation incident to the processes of producing or utilizing fissionable material in order to increase the supply of radio-active materials.

Manufacture of Production Facilities

No person may manufacture, produce, transfer, or acquire any facilities for the production of fissionable material unless authorized by the Commission. Licenses shall be issued under such regulations as the Commission sees fit to set up.

Control of Materials

Definition

As defined in the Act, "fissionable material" means plutonium, uranium enriched in the isotope 235, or any other material which the Commission determines to be capable of releasing substantial quantities of energy through nuclear chain reaction of the material. The term includes ores of uranium, thorium, or other fissionable materials only if they contain one or more of these materials in such concentration as the Commission may by regulation determine from time to time.

Government Ownership

All fissionable material under the jurisdiction of the United States now or hereafter produced shall be the property of the Commission by virtue of the Act. Just compensation shall be paid by the Commission to any person owning any interest in any fissionable material at the time of the enactment of this Act.

Prohibition

> "It shall be unlawful for any person after sixty days from the effective date of this Act to (A) possess or transfer any fissionable material, except as authorized by the Commission, or (B) export from or import into the United States any fissionable material, or (C) directly or indirectly engage in the production of any fissionable material outside of the United States."

Distribution of Fissionable Material

The Commission is authorized to distribute fissionable material for the conduct of research, for use in medical therapy, or for any use licensed by the Commission. It is specified that in distribution of this material the quantity allowed an applicant will be insufficient for construction of a bomb or other military weapon.

The Commission is authorized to purchase or otherwise acquire any fissionable material or any interest therein,both inside and outside the United States, or any interest in facilities for the production of fissionable material or in real property on which such facilities are located, upon certification by the Commission that such action is necessary in the interest of the common defense and security. The Commission is further authorized to take, requisition, or condemn such facilities or real property and to make just compensation therefor.

Source Materials

Source material is defined as uranium, thorium, or any other material which is determined by the Commission, with the approval of the President, to be peculiarly essential to the production of fissionable materials.

License

A person must have a license from the Commission in order to transfer, receive, or export any source material. Procedures concerned with issuance and application of licenses shall be established by the Commission.

Acquisition

The Commission is authorized to acquire supplies of source materials in any way that it sees fit in the interest of defense and security, and may establish prices or just compensation.

Exploration

The Commission is authorized to conduct and enter into contracts for the conduct of exploratory operations, investigations, and inspections of deposits or supplies or source materials, making "just compensation" for any damage or injury occasioned thereby.

Public Lands

All uranium, thorium, and other "source materials", as determined by the Commission, contained in deposits in the public lands are reserved for use of the United States subject to valid claims existing on date of enactment of the Act (August 1, 1946). Exception is made that no one who had any part, directly or indirectly, in the development of the atomic bomb project, may benefit by any location, entry, or settlement upon the public domain if such location, etc., is made subsequent to date of enactment of this Act, if such benefit is derived because of confidential information of the existence of "source materials" acquired because of his part in the project.

The Secretary of the Interior shall cause to be inserted in every patent, conveyance, lease, permit, or other authorization hereafter granted to use the public lands or their mineral resources, a reservation to the United States of all "source materials" whether or not of commercial value. The reservation shall contain a statement of the right of the United States through its authorized agents to enter upon the land and prospect for, mine, and remove any of the reserved materials, "making just compensation for any damage, or injury occasioned thereby." The lands specified in this section may be used, and "any rights under any permit or authorization may be exercised, as if no reservation of such materials had been made under this subsection; except that, when such use results in the extraction of any such material from the land in quantities which may not be transferred or delivered without a license under this subsection, such material shall be the property of the Commission, and the Commission may require delivery of such material to it by any possessor thereof after such material has been separated as such from the ores in which it is contained." Provision is made for "fair and reasonable" payment by the Commission.

By-product Materials

These are defined as "any radio-active material (except fissionable material) yielded in or made radio-active by exposure to the radiation incident to the processes of producing or utilizing fissionable material."

"The Commission is authorized to distribute, with or without charge, by-product materials to applicants seeking such materials for research or development activity, medical therapy, industrial uses or such other useful applications as may be developed." Distribution of such materials shall be under such regulations as the Commission chooses to establish.

The Commission shall not distribute any fissionable material to any person for a use not under or within the jurisdiction of the United States nor to any foreign government.

Military Applications of Atomic Energy

The Commission is authorized to conduct experiments in the way of research and development work in the military application of atomic energy and to engage in production of atomic bombs or other military weapons utilizing fissionable materials except that such activities shall be carried on only to the extent that the express consent and direction of the President of the United States has been obtained at least once each year.

Utilization of Atomic Energy

License Required

The Commission is given the power to license any and all activities connected with utilization of fissionable material.

Report to Congress

The Commission shall report to the President whenever in its opinion any commission or other nonmilitary application of fissionable material has been sufficiently developed to be of practical value. The report shall be transmitted to Congress by the President with his recommendations.

Property of the Commission

All interests owned by the United States or any Government agency in all fissionable material, weapons, facilities, and property in connection with atomic energy research and development shall be transferred to the Commission.

Authority is given to the Commission to make payments in lieu of taxes to those States and localities in which the activities of the Commission are carried on and in which the Commission has acquired property previously subject to State and local taxation.

Control of Information

Policy

The Commission shall control the dissemination of information in connection with its work so as to assure the common defense and security.

It is stated "that until Congress declares, by joint resolution, that effective and enforceable international safeguards against the use of atomic energy for destructive purposes have been established, there shall be no exchange of information with other nations with respect to the use of atomic energy for industrial purposes;" and "that the dissemination of scientific and technical information relating to atomic energy should be permitted and encouraged so as to provide for free interchange of ideas and criticisms essential to scientific progress."

Restrictions

The term "restricted data" is defined as all data concerning the manufacture or utilization of atomic weapons, the production of fissionable material, or use of fissionable material in the production of power. Such data shall not be communicated, transmitted, or disclosed in any form to any individual or person.

Penalties for violating provisions of the act are provided. These penalties may consist of a heavy fine or imprisonment or both and could be, upon the recommendation of a jury, imprisonment for life or the death penalty in cases where the offense was committed with the attempt to injure the United States.

Patents and Inventions

Production and Military Utilization

> "No patent shall hereafter be granted for any invention or discovery which is useful solely in the production of fissionable material or in the utilization of fissionable material or atomic energy for a military weapon. Any patent granted for any such invention or discovery is hereby revoked and just compensation shall be made therefor."

> "Any person who has made or hereafter makes any invention or discovery useful in the production of fissionable material or atomic energy for a military weapon shall file with the Commission a report containing a complete description thereof unless such invention or discovery is described in an application for a patent filed in the Patent Office by such person within the time required for the filing of such report." The report covering any such invention or discovery shall be filed on or before whichever of the following is the latest: (a) the sixtieth day after the date of enactment of this Act, (b) the sixtieth day after the completion of such invention or discovery, or (c) the sixtieth day after such person discovers or first has reason to believe that such invention or discovery is useful in such production or utilization.

Whenever any patent has been declared by the Commission to be effected with the public interest, the Commission is licensed to use the invention or discovery covered by such patent and any person to whom a license has been issued by the Commission may use the invention or discovery as authorized by his license. The owner of the patent shall be entitled to a reasonable royalty fee.

There are several provisions in the Act concerned with adjudication of patent controversies and compensation awards.

General Authority

The Commission is authorized to establish advisory boards to advise with and make recommendations to the Commission on legislation, policies, administration, research, and other matters and to hold hearings in which the Commission is authorized to administer oaths and to subpoena witnesses.

Joint Committee on Atomic Energy

A joint committee to be composed on nine members of the Senate, to be appointed by the President of the Senate, and nine members of the House of Representatives, to be appointed by the Speaker of the House of Representatives, is established by the Act. In each instance, not more than five members shall be members of the same political party. The joint committee shall make continuing studies of the activities of the Atomic Energy Commission and the Commission shall keep the joint committee fully informed concerning such activities. All legislation relating primarily to the Commission or to atomic energy shall be referred to the joint committee.

Reports

The Commission shall report to Congress in January and July of each year, and at any time it deems desirable, submit to the Congress such recommendations for additional legislation as the Commission deems necessary or desirable.

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OREGON PERLITE REPORT

Perlite, a form of volcanic glass, is the subject of a geologic report just issued by the State Department of Geology and Mineral Industries. Perlite pops like popcorn when heated quickly to a high temperature in a furnace and the expanded product is very light in weight, making a superior insulating material.

There are several known large deposits of perlite in central and eastern Oregon. Those favorably situated in regard to transportation are the most attractive for commercial operation. Deposits now being developed by Dant & Russell, Inc., and which will soon be in production, are located near the railroad along the Deschutes River in southern Wasco County.

The report, GMI Short Paper No. 16, describes the geology of the deposits with particular attention to those on the Deschutes River, and includes maps, illustrations, and tables. Dr. John Eliot Allen, geologist, is the author. The report may be obtained at the office of the Department, 702 Woodlark Building, Portland, and at the field offices in Baker and Grants Pass. Price 15 cents postpaid.

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GOVERNING BOARD CHANGE

Recently Mr. S. H. Williston resigned as a member of the Governing Board of the State Department of Geology and Mineral Industries because of the press of business which requires him to spend part of his time in the East.

On January 20, Governor Snell appointed Mr. H. E. Hendryx, Baker, advertising manager for the Baker Herald, as Mr. Williston's successor on the Board. The State Senate has confirmed the appointment of Mr. Hendryx.

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HORSE HEAVEN MINES TAKEN OVER BY CORDERO

Horse Heaven Mines, Inc., has assigned all of its mining property in Jefferson County, Oregon, to Cordero Mining Company of Nevada. There will be no change in ownership or operating personnel since both companies have the same stockholders.

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ROGUE RIVER MINING CLOSURE ORDER

According to the Coos County Reporter, Gold Beach, issue of January 10, the Rogue River Coordination Board at a meeting held in Grants Pass agreed to order the Rogue River closed to mining between April 15 and November 1 of this year. A similar order by the Board closed the river to mining between the same dates last year.

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ANNUAL ASSESSMENT WORK

Public Law 47, approved May 3, 1943, provided for suspension of annual assessment work on mining claims held by location until 12 o'clock noon on the 1st day of July after the cessation of hostilities of World War II as determined by proclamation of the President or concurrent resolution of the Congress. The President has officially declared that hostilities ceased on December 31, 1946; therefore it will be necessary to do annual assessment work for the assessment year beginning at noon July 1, 1947, unless Congress takes further action to suspend such work.

In order to obtain the benefits of the Act for the current assessment year, it is required that a claimant must file in the office where his location notice is recorded a notice of his desire to hold his mining claim or claims on or before 12 o'clock noon of July 1, 1947.

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SWITZERLAND REMOVED CONTROLS FROM GOLD

The Swiss, always a progressive people, have removed controls from gold. The lucky Switzer may now own all the coin he can afford, hoard all he wishes, and buy and sell as he pleases. Convertibility with paper is restored. Evidently the Swiss government does not question its citizens' faith in the country's paper money. From Pay Dirt, December 21, 1946, published by the Arizona Small Mine Operators Association.

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CLEARING HOUSE

CH-90- FOR SALE: 8 gold (free milling) claims comprising Nicolai Group, Powers District, Coos County. For further information write Mrs. E. L. Coy, Powers, Oregon.

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MINING NOTES

R. G. Amidon is superintendent of the Buffalo Mines in the Granite District, eastern Grant County.

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The Williams Paint Company, Emeryville, California, has recently purchased and shipped 1,233 tons of limonite to be used as pigment. The ore was mined from the Ironcrest property, located about 8 miles west of Scappoose in Columbia County. The property is owned by the A. A. Muck interests.

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W. E. Pantle Gold Dredging Company is dredging ground located about one mile east of Jacksonville, Jackson County. Equipment consists of a 1½-cubic yard Bucyrus-Erie dragline and a Judson-Pacific dry land washing plant mounted on caterpillar treads. Gold is recovered in Ainlay bowls. Overburden is stripped and overcast, and will be returned to the leveled-off tailings as a resoiling operation.

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Calhoun and Howell are operating a 3-yard dragline on the North Fork of the John Day River at a location about 8 miles up the river from Dale.

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A new 3-yard Monighan dragline has recently been installed on Sucker Creek, Josephine County, by the B-H Company, Tom Gerety, President, Medford, Oregon.

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CLEARING HOUSE

CH-91: Philip S. Hoyt, Inc., 1002 Mills Bldg., El Paso, Texas, wishes to obtain economic deposits of the following minerals and rocks:

(1) siderite (iron carbonate)

(2) chalk

(3) sandstone (containing from 20 percent to 30 percent iron oxide; large tonnage and low cost production)

(4) barite - witherite (mixture of barium sulphate and barium carbonate; large tonnage)

(5) halloysite

(6) pitchstone (perlite)

(7) fluorspar - barite ore

(8) pyrophyllite

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HIGH METAL PRICES

Excepting silver and mercury, there has been an up-surge in most metal prices since OPA ceilings were removed. Demand continues strong. Recent market quotations are as follows: copper, 19½¢ per pound, Connecticut Valley; lead, 13¢ per pound, New York, and 12.8¢ at St. Louis; zinc, 10.5¢ per pound, East St. Louis; antimony, 29.6¢ per pound, New York; tin, 70¢ per pound.

The price of silver used in trade and industry has been weak - falling below 80¢ per ounce. The price of silver paid to domestic producers is of course fixed by law at 90.5¢ per ounce. Mercury is quoted at from $88 to $92 a flask.

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AGRICULTURAL LIMESTONE

Oregon farms, particularly those in Western Oregon, may receive substantially greater tonnages of agricultural limestone during 1947 than they did last year. The field service branch of the Production Marketing Administration, U.S. Department of Agriculture, has awarded contracts to 5 Northwest limestone producers which have indicated that they might deliver a possible maximum total of 271,000 tons during the year. The Portland office of Production Marketing Administration expects actual delivery to be considerably smaller than this figure, however. Last year approximately 35,000 tons of limestone were delivered to farmers enrolled under the Government program which was formerly handled by the Agricultural Adjustment Administration.

Principal sources of limestone contracted for are Silica Products Company, Bryant, Washington; Oregon Portland Cement Company, Oswego, Oregon; and Electro Lime & Chemical Company, Gazelle, California, with smaller tonnages from Limestone Products Inc., Dallas, Oregon, and Shell Rock Products, Chinook, Washington. Cost of the limestone (F.O.B. plants in bulk) ranges from $2.97 to $5.50. Freight and spreading charges vary considerably and add materially to the above figures.

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TEXAS COMPANY OIL TEST PROGRESS

The Texas Company test well, Clark & Wilson No. 6-1, located near Mist, Columbia County, was 2875 feet deep on the evening of January 23. Mr. Rex Grivetti, geologist with the company, has reported that the excessively cold weather has slowed up progress considerably because of frequent freezing of the main water line.

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SPANISH QUICKSILVER

According to U.S. Bureau of Mines Mineral Trade Notes, October 19, 1946, "Mercury output in Spain totaled 14,110 flasks during the first half of 1946, compared with 9,221 flasks in the same period of 1945. Exports during the first half of 1946 totaled 2,982 tons." (Nearly 80,000 flasks. Ed.)

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PUBLICATIONS

		Price postpaid
GEOLOGIC MAP SERIES		
1.	Geologic map of the Wallowa Lake quadrangle, 1938: W.D. Smith & Others (also in Bull. 12)	$ 0.45
2.	Geologic map of the Medford quadrangle, 1939: F.G. Wells & Others	0.40
3.	Geologic map and geology of the Round Mountain quadrangle, 1940: W.D. Wilkinson & Others	0.25
4.	Geologic map of the Butte Falls quadrangle, 1941: W.D. Wilkinson & Others	0.45
5.	Geologic map and geology of the Grants Pass quadrangle, 1940: F.G. Wells & Others	0.30
6.	Preliminary geologic map of the Sumpter quadrangle, 1941: J.T. Pardee & Others	0.40
7.	Geologic map of the Portland area, 1942: Ray C. Treasher	0.25
8.	Geologic map of the Coos Bay quadrangle, 1944: Allen & Baldwin (sold with Bull. 27)	----
9.	Geologic map of the St. Helens quadrangle, 1945: W.D. Wilkinson, W.D. Lowry, & E.M. Baldwin (sold with Bull. 31)	----
MISCELLANEOUS PUBLICATIONS		
	The Ore.-Bin: issued monthly by the staff as medium for news about the Department, mines, and minerals. Subscription price per year	0.25
	Oregon mineral localities map (22 x 34 inches) 1946	0.10
	Oregon quicksilver localities map (22 x 34 inches) 1946	0.25
	Landforms of Oregon: a physiographic sketch, (17 x 22 inches) 1941	0.10

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