

MUSCLE SHOALS.

FEBRUARY 2, 1924.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed.

Mr. McKENZIE, from the Committee on Military Affairs submitted the following

REPORT.

[To accompany H. R. 518.]

The Committee on Military Affairs, to whom was referred the bill (H. R. 518) to authorize and direct the Secretary of War to sell to Henry Ford nitrate plant No. 1, at Sheffield, Ala.; nitrate plant No. 2, at Muscle Shoals, Ala.; Waco quarry, near Russellville, Ala.; and to lease to the corporation to be incorporated by him Dam No. 2 and Dam No. 3, (as designated in House Document No. 1262, Sixty-fourth Congress, first session), including power stations when constructed as provided herein, and for other purposes, having considered the same, report thereon with a recommendation that it do pass with the following amendments:

Page 3, line 7, strike out all after the word "to" and the word "Congress" on line 8 and insert in lieu thereof "May 31, 1922."

Page 16, line 17, strike out all of section 19 and insert new sections to read as follows:

SEC. 19. The Gorgas steam plant and transmission line having been sold by the United States, and Henry Ford having included said steam plant and transmission line in his offer of May 31, 1922 (as found in section 12 and in subsection (d) of section 11 of said offer), in order to provide a substitute steam plant the Secretary of War is hereby authorized and directed to acquire by purchase or condemnation a suitable site for a steam power plant, to be located at or near Lock and Dam numbered 17, Black Warrior River, Alabama, together with a strip of land one hundred feet wide to serve as a right of way between said steam power plant and nitrate plant numbered 2, Muscle Shoals, Alabama, with connection to Waco Quarry, near Russellville, Alabama.

The Secretary of War is further authorized and directed to contract with Henry Ford or the company to be incorporated by him for the construction at cost of a steam power plant having a generating capacity of approximately thirty thousand kilowatts (forty thousand horsepower), a transformer substation of similar capacity, and a transmission line of suitable design and capacity connecting said steam power plant with nitrate plant numbered 2 and the Waco quarry, all under the supervision of the Chief of Engineers, United States

Army. The plans and specifications for said power plant, substation, and transmission line shall be prepared by Henry Ford, or the company to be incorporated by him, and approved by the Chief of Engineers, United States Army.

The expenditures authorized to be made for all purposes under this section shall not exceed a total of \$3,472,487.25.

SEC. 20. The Secretary of War is hereby authorized and directed to execute and deliver all necessary deeds of conveyance, and to execute on the part of the Government all leases required to carry out the provisions of this act.

SEC. 21. The interest on account of lease of Dam Numbered 2 shall apply to all expenditures and obligations of the Government in connection with said dam which have been incurred since May 31, 1922.

SEC. 22. The stock of the company to be formed by Henry Ford referred to in section 1 of this act shall be controlled after his death by his heirs or by American citizens, and no stock or bonds issued by any company or subsidiary company in connection with the lease of the dams referred to herein or in connection with nitrate plant numbered 2 or any substitute therefor or addition supplementary thereto shall be owned or controlled by any foreign corporation, citizen, or subject.

The purpose of this amendment is to keep the control of this project so essential to national defense forever in the control of American citizens.

SEC. 23. All of the contracts, leases, deeds, transfers, and conveyances necessary to effectuate the acceptance of said offer shall be binding upon the United States and jointly and severally upon Henry Ford, his heirs, representatives, and assigns, and the company to be incorporated by him, its successors, and assigns.

Page 16, line 21, change "Sec. 20" to "Sec. 24."

Page 16, line 24, change "Sec. 21" to "Sec. 25."

Amend the title to read as follows:

To authorize and direct the Secretary of War, for national defense in time of war and for the production of fertilizers and other useful products in time of peace, to sell to Henry Ford, or a corporation to be incorporated by him, nitrate plant numbered 1, at Sheffield, Alabama; nitrate plant numbered 2, at Muscle Shoals, Alabama; Waco quarry, near Russellville, Alabama; steam power plant to be located and constructed at or near Lock and Dam Numbered 17 on the Black Warrior River, Alabama, with right of way and transmission line to nitrate plant numbered 2, Muscle Shoals, Alabama; and to lease to Henry Ford, or a corporation to be incorporated by him, Dam Numbered 2 and Dam Numbered 3 (as designated in House Document 1262, Sixty-fourth Congress, first session), including power stations when constructed as provided herein, and for other purposes.

The amendment striking out Section 19 of the McKenzie Bill and inserting in lieu thereof the language of the amendment which is commonly known as the Madden amendment is made necessary due to the fact that Mr. Ford's original offer included the taking over of the Government's interest in the Gorgas-Warrior steam plant for the purpose of furnishing auxiliary power to the plant at Muscle Shoals. The interest of the Government in this plant having been conveyed to the Alabama Power Co., together with the transmission line running to Muscle Shoals, it is necessary, in order to complete the project proposed by Mr. Ford in his offer, that a site on the Warrior River and a right of way for a transmission line to Muscle Shoals be acquired and conveyed to Mr. Ford in lieu of the interest of the Government in the Gorgas-Warrior steam plant now in the possession of and the property of the Alabama Power Co. The amendment is intended to do this, and further to limit the amount of the expenditures on the part of the Government to the amount received by the Government from the Alabama Power Co. in consideration of the

sale of the Government's interest in the said Gorgas-Warrior steam plant, to wit, \$3,472,487.25.

The bill as amended will read as follows:

[H. R. 518, Sixty-eighth Congress, first session.]

A BILL To authorize and direct the Secretary of War, for national defense in time of war and for the production of fertilizers and other useful products in time of peace, to sell to Henry Ford, or a corporation to be incorporated by him, nitrate plant numbered 1, at Sheffield, Alabama; nitrate plant numbered 2, at Muscle Shoals, Alabama; Waco Quarry, near Russellville, Alabama; steam power plant to be located and constructed at or near Lock and Dam Numbered 17 on the Black Warrior River, Alabama, with right of way and transmission line to nitrate plant numbered 2, Muscle Shoals, Alabama; and to lease to Henry Ford, or a corporation to be incorporated by him, Dam Numbered 2 and Dam Numbered 3 (as designated in House Document 1262, Sixty-fourth Congress, first session), including power stations when constructed as provided herein, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War is hereby authorized and directed, for and in behalf of the United States of America, to execute the following contracts:

For the purpose of carrying out the terms of this agreement, Henry Ford will form a corporation (hereinafter referred to as the company) with a capital stock of \$10,000,000, or more, of which at least \$10,000,000 shall be paid in, in cash, to be controlled by Henry Ford, which company will immediately enter into and execute all necessary or appropriate instruments of contract to effectuate this agreement.

SEC. 2. The company shall complete for the United States, subject to the approval of the Chief of Engineers, United States Army, Dam Numbered 2, its locks, power house, and all necessary equipment, all in accordance with the plans and specifications prepared, or to be prepared, or approved by the Chief of Engineers, United States Army, and progressively install the hydroelectric equipment in said power house adequate for generating approximately six hundred thousand horsepower, all the work aforesaid to be performed as speedily as possible at actual cost and without profit to the company. It is understood that the necessary lands and flowage rights, including lands for railway and terminal connections, have been or will be acquired by the United States.

SEC. 3. The company will lease from the United States Dam Numbered 2, its power house, and all of its hydroelectric and operating appurtenances, except the locks, together with all lands and buildings owned or to be acquired by the United States connected with or adjacent to either end of the said dam, for a period of one hundred years from the date when structures and equipment of a capacity of one hundred thousand horsepower are constructed and installed and ready for service, and will pay to the United States as annual rental therefor, 4 per centum of the actual cost of acquiring land and flowage rights, and of completing the locks, dam, and power-house facilities (but not including expenditures and obligations incurred prior to May 31, 1922), payable annually at the end of each lease year, except that during and for the first six years of the lease period, the rentals shall be in the following amounts and payable at the following times, to wit: Two hundred thousand dollars one year from the date when one hundred thousand horsepower is installed and ready for service, and thereafter \$200,000 annually at the end of each year for five years.

SEC. 4. The company will further pay to the United States during the period of the lease of Dam Numbered 2, \$35,000 annually, in installments quarterly in advance, for repairs, maintenance, and operation of Dam Numbered 2, its gates and locks, it being understood that all necessary repairs, maintenance, and operation thereof shall be under the direction, care, and responsibility of the United States during the said one hundred year lease period; and the company, at its own expense, will make all necessary renewals and repairs incident to efficient maintenance of the power house, substructures, superstructures, machinery, and appliances appurtenant to said power house, and will maintain the same in efficient operating condition.

SEC. 5. At all times during the period of the lease of Dam Numbered 2 the company will furnish to the United States free of charge, to be delivered at any point on the lock grounds designated by the Chief of Engineers, United States Army, electric power to an amount necessary for the operation of the locks, but not in excess of two hundred horsepower.

SEC. 6. As soon as the release of suitable construction equipment and labor forces at Dam Numbered 2 will permit or at an earlier date if desired by the company, the company shall construct and complete, subject to the approval of the

Chief of Engineers, United States Army, for the United States, Dam Numbered 3, its lock, power house, and all necessary equipment, all in accordance with plans and specifications prepared and to be prepared by the Chief of Engineers, United States Army, or by the company, at its option, and approved by the Chief of Engineers, United States Army, and progressively install the hydroelectric equipment in said power house adequate for generating approximately two hundred and fifty thousand horsepower, all the work aforesaid to be performed as speedily as possible at actual cost and without profit to the company, it being understood that the necessary lands, flowage rights, and rights of way shall be acquired by the United States through an agent to be named by the company.

SEC. 7. The company will lease from the United States Dam Numbered 3, its power house, and all of its hydroelectric and operating appurtenances, except the lock, together with all lands and buildings owned or to be acquired by the United States connected with or adjacent to either end of the said dam, for a period equal to the lease term of Dam Numbered 2 and its hydroelectric power equipment thereat as stated in paragraph 3 hereof, in order that said respective lease terms of the two dams and the hydroelectric equipment thereat shall expire at the same time, the said period to begin from the date when structures and equipment of a capacity of eighty thousand horsepower are constructed and installed and ready for service, and will pay to the United States as annual rental therefor 4 per centum of the actual cost of acquiring lands and flowage rights, and of constructing the lock, dam, and power-house facilities, payable annually at the end of each lease year, except that during and for the first three years of the lease period the rentals shall be in the following amounts and payable at the following times, to wit: One hundred and sixty thousand dollars one year from the date when eighty thousand horsepower is installed and ready for service, and thereafter \$160,000 annually at the end of each year for two years. Dams Numbered 2 and 3 shall be included in the lease.

SEC. 8. The company will further pay to the United States during the period of the lease of Dam Numbered 3, \$20,000 annually, in installments quarterly in advance, for repairs, maintenance, and operation of Dam Numbered 3, its gates and lock, it being understood that all necessary repairs, maintenance, and operation thereof shall be under the direction, care, and responsibility of the United States during the said one hundred year period; and the company, at its own expense, will make all necessary renewals and repairs incident to the efficient maintenance of the power house, substructures, superstructures, machinery, and appliances appurtenant to said power house and will maintain the same in efficient operating condition.

SEC. 9. At all times during the period of the lease of Dam Numbered 3 the company will furnish to the United States, free of charge, to be delivered at any point on the lock grounds designated by the Chief of Engineers, United States Army, electric power necessary for the operation of the said lock, but not in excess of one hundred horsepower.

SEC. 10. For the purpose of enabling the Government to create and provide a sinking fund to retire the cost of Dam Numbered 3 at the end of the lease period, the company will, at the beginning of the fourth year of the lease period, and semiannually thereafter for the remaining term of the lease, pay to the United States Government the sum of \$3,505; and for the purpose of enabling the Government to create and provide a sinking fund to retire the cost of Dam Numbered 2 at the end of one hundred years, the company will at the beginning of the seventh year of the lease period, and semiannually thereafter for the remaining term of the lease, pay to the United States Government the sum of \$19,868.

SEC. 11. The company agrees to purchase from the United States, and the United States will sell the following properties, namely:

(a) All of the property constituting nitrate plant numbered 2 (as officially known and designated), including lands, power plants, buildings, material, machinery, fixtures, equipment, apparatus, appurtenances, tools, and supplies, and the right, license, and privilege to use any and all of the patents, processes, methods, and designs which have been acquired and may be transferred or assigned to a purchaser of nitrate plant numbered 2 by the United States, together with the sulphuric acid units now in storage on the premises.

(b) All of the property constituting nitrate plant numbered 1 (as officially known and designated), including lands, power plants, buildings, material, machinery, fixtures, equipment, apparatus, appurtenances, tools, and supplies, and the right, license, and privilege to use any and all of the patents, processes, methods, and designs which have been acquired and may be transferred to a

purchaser of nitrate plant numbered 1 by the United States, but the company shall not be obliged to operate nitrate plant numbered 1 as an air nitrogen fixation plant.

(c) All of the property constituting the Waco Quarry (as officially known and designated), including rights of way and buildings, material, quarry tracks, machinery, railroad tracks, appurtenances, tools, and supplies.

Sec. 12. As the purchase price for the foregoing plants and properties to be conveyed to the company by the United States, the company will pay to the United States \$5,000,000 in five installments as follows: One million dollars upon the acceptance of this offer, and \$1,000,000 annually thereafter until the purchase price is fully paid, with interest at the rate of 5 per centum per annum on deferred payments, with the privilege of anticipating any or all such payments, possession to be delivered upon payment of the first of said installments, and deeds of conveyance to be delivered when full payment for said property has been made. Each of said deeds shall refer to or contain the provisions of this offer and said deeds shall be so drawn as to make such provisions covenants running with the land.

Sec. 13. This proposal contemplates and it is agreed that the purchase price for the property aforesaid shall not be diminished by reason of depreciation due to use or wear of buildings, machinery, and equipment, or to the action of the elements, nor shall any claim be made for losses in or diminution of quantity of tools and supplies due to upkeep and maintenance during the period between the date hereof and the date of delivery of possession of said property; it being further understood that no inventory of the property need be taken, but that due care will be exercised by the United States in preserving and safeguarding the aforesaid real and personal property intact until possession thereof passes to the company. If any part or parts of the aforesaid plants necessary for proper operation of same have been removed by the United States, said part or parts shall be returned when possession of said plants passes to the company. Deeds of conveyance of real property shall warrant the title to be good and unencumbered, but in accordance with and subject to the provisions set forth in paragraph 12 hereof.

Sec. 14. Since the manufacture, sale, and distribution of commercial fertilizers to farmers and other users thereof constitute one of the principal considerations of this offer, the company expressly agrees that, continuously throughout the lease period, except as it may be prevented by reconstruction of the plant itself, or by war, strikes, accidents, fires, or other causes beyond its control, it will manufacture nitrogen and other commercial fertilizers, mixed or unmixed, and with or without filler, according to demand, at nitrate plant numbered 2 or its equivalent, or at such other plant or plants adjacent or near thereto as it may construct, using the most economical source of power available. The annual production of these fertilizers shall have a nitrogen content of at least forty thousand tons of fixed nitrogen, which is the present annual capacity of nitrate plant numbered 2. If during the lease period said nitrate plant numbered 2 is destroyed or damaged from any cause, the company agrees to restore such plant within a reasonable time to its former capacity, and further agrees:

(a) To determine by research whether by means of electric-furnace methods and industrial chemistry there may be produced on a commercial scale fertilizer compounds of higher grade and at lower prices than farmers and other users of commercial fertilizers have in the past been able to obtain, and to determine whether in a broad way the application of electricity and industrial chemistry may accomplish for the agricultural industry of the country what they have economically accomplished for other industries, and if so found and determined, to reasonably employ such improved methods.

(b) To maintain nitrate plant numbered 2 in its present state of readiness or its equivalent for immediate operation in the manufacture of materials necessary in time of war for the production of explosives.

Sec. 15. In order that farmers and other users of fertilizers may be supplied with fertilizers at fair prices and without excessive profits, the company agrees that the maximum net profit which it shall make in the manufacture and sale of fertilizer products shall not exceed 8 per centum of the fair actual annual cost of production thereof. In order that this provision may be carried out the company agrees to the creation of a board of not more than nine voting members, chosen as follows: The three leading representative farm organizations, national in fact, namely, the American Farm Bureau Federation, the National Grange, the Farmers' Educational and Cooperative Union of America, or their successor or successors (said successor or successors to be determined, in case of

controversy, by the Secretary of Agriculture), shall each designate not more than seven candidates for said board in the first instance and thereafter, for succession in office, not more than three candidates. The President shall nominate for membership on this board not more than seven of these candidates, selected to give representation to each of the above-mentioned organizations, said nominations to be made subject to confirmation by the Senate, and there shall be two voting members of said board selected by the company: *Provided*, That not more than one shall be nominated by the President from the same State; that if the Senate shall not confirm all of said seven nominees the President shall send additional names from the said list of candidates until the Senate shall have confirmed seven: *Provided further*, That if either or any of said farm organizations or its or their successors by reason of the expiration of its or their charter or ceasing to function or failing to maintain its organization or for any cause or reason should decline, fail, or neglect to make such designations, then the Secretary of Agriculture shall make such designation or designations for such or all of said organizations as may so decline, fail, or neglect to make such designation; and if such designation is made by the Secretary of Agriculture for only one or two of said organizations, then such designation shall be made so as to give the remaining organization or organizations the same right and in the same proportion to designate candidates for said board as in the first instance and just as though all of said organizations were making such designations: *Provided, however*, That a failure to make designations at any one time shall not thereafter deprive any organization of its original rights under this section: *And provided further*, That the terms of office of the first seven candidates nominated by the President and confirmed by the Senate on the designation of said farm organizations shall be as follows: Two for a period of two years, two for a period of four years, and the remaining three for a period of six years, and thereafter the nominations for membership on said board made by the President, except for unexpired terms, shall be for six years each. None of the members of said board shall draw compensation from the Government, except that any which may be nominated and confirmed on the designation of the Secretary of Agriculture under the provisions hereof shall receive from the Government their actual expenses while engaged in work on said board.

A representative of the Bureau of Markets, Department of Agriculture, or its legal successor, to be appointed by the President, shall also be a member of the board serving in an advisory capacity without the right to vote. The said board shall determine what has been the cost of manufacture and sale of fertilizer products and the price which has been charged therefor, and, if necessary for the purpose of limiting the annual profit to 8 per centum as aforesaid, shall regulate the price at which said fertilizer may be sold by the company. For these purposes, said board shall have access to the books and records of the company at any reasonable time. In order that such fertilizer products may be fairly distributed and economically purchased by farmers and other users thereof, the said board shall determine the equitable territorial distribution of the same and may, in its discretion, make reasonable regulation for the sale of all or a portion of such products by the company to farmers, their agencies, or organizations. If and when said board can not agree upon its findings and determinations, then the points of disagreement shall be referred to the Federal Trade Commission (or its legal successor) for arbitration and settlement, and the decision of said commission in such cases shall be final and binding upon the board.

SEC. 16. Whenever, in the national defense, the United States shall require all or any part of the operating facilities at nitrate plant numbered 2 for the production of materials necessary in the manufacture of explosives or other war materials, then the United States shall have the immediate right, upon five days' notice to the company, to take over and operate the same, and the company will supply the United States with hydroelectric power necessary for such operations, together with the use of all patented processes which the United States may need which the company owns or has the right to use. When required for national defence any of the company's personnel and operating organization necessary for operating any part of nitrate plant numbered 2 in the manufacture of materials for explosives, or other war materials, shall be at the disposal of the United States. For the facilities and services aforesaid the United States shall protect the company from losses occasioned by such use and shall return the said property in as good condition as when received and reasonably compensate the company for the use thereof. All duly authorized agents and representatives of the United States shall have free access at all reasonable times to inspect and study all of the operations, chemical processes, and methods employed by the company

at nitrate plant numbered 2, provided that such agents and representatives shall not use the information and the facts concerning any of the company's operations, except for the benefit and protection of the United States.

Sec. 17. In order that said company may be supplied with electric power and the farmers and other users with fertilizers after the termination of the said one-hundred-year lease, should the United States elect not to operate said power plants but determine to lease or dispose of same, the company shall have the preferred right to negotiate with the United States for such lease or purchase, and upon such terms as may then be prescribed by Congress.

Sec. 18. In addition to any other remedies that may be possessed by the United States, and as a further method of procedure in the event of the violation of any of the terms of this proposal or any contracts made in furtherance of its terms, the company agrees that the Attorney General may, upon the request of the Secretary of War, institute proceedings in equity in the District Court of the United States for the Northern District of Alabama for the purpose of canceling and terminating the lease of Dam Numbered 2 or Dam Numbered 3, or both of them, because of such violation or for the purpose of remedying or correcting by injunction, mandamus, or other process, any act of commission or omission in violation of the terms of this proposal or any contract made in furtherance thereof.

Sec. 19. The Gorgas steam plant and transmission line having been sold by the United States, and Henry Ford having included said steam plant and transmission line in his offer of May 31, 1922 (as found in section 12 and in subsection (d) of section 11 of said offer), in order to provide a substitute steam plant the Secretary of War is hereby authorized and directed to acquire by purchase or condemnation a suitable site for a steam power plant, to be located at or near Lock and Dam Numbered 17, Black Warrior River, Alabama, together with a strip of land one hundred feet wide to serve as a right-of-way between said steam power plant and nitrate plant numbered 2, Muscle Shoals, Alabama, with connection to Waco quarry, near Russellville, Alabama.

The Secretary of War is further authorized and directed to contract with Henry Ford or the company to be incorporated by him for the construction at cost of a steam power plant having a generating capacity of approximately thirty thousand kilowatt (forty thousand horsepower), a transformer substation of similar capacity and a transmission line of suitable design and capacity connecting said steam power plant with nitrate plant numbered 2 and the Waco quarry, all under the supervision of the Chief of Engineers, United States Army. The plans and specifications for said power plant, substation and transmission line shall be prepared by Henry Ford, or the company to be incorporated by him, and approved by the Chief of Engineers, United States Army.

The expenditures authorized to be made for all purposes under this section shall not exceed a total of \$3,472,487.25.

Sec. 20. The Secretary of War is hereby authorized and directed to execute and deliver all necessary deeds of conveyance, and to execute on the part of the Government all leases required to carry out the provisions of this act.

Sec. 21. The interest on account of lease of Dam Numbered 2 shall apply to all expenditures and obligations of the Government in connection with said dam which have been incurred since May 31, 1922.

Sec. 22. The stock of the company to be formed by Henry Ford referred to in section 1 of this act shall be controlled after his death by his heirs or by American citizens, and no stock or bonds issued by any company or subsidiary company in connection with the lease of the dams referred to herein or in connection with nitrate plant numbered 2 or any substitute therefor or addition supplementary thereto shall be owned or controlled by any foreign corporation, citizen, or subject.

Sec. 23. All of the contracts, leases, deeds, transfers, and conveyances necessary to effectuate the acceptance of said offer shall be binding upon the United States, and jointly and severally on Henry Ford, his heirs, representatives, and assigns, and the company to be incorporated by him, its successors and assigns.

Sec. 24. The appropriations necessary to carry out the provisions of this act on the part of the Government are hereby authorized.

Sec. 25. That all laws and parts of laws in conflict herewith be, and the same are hereby, repealed.

On February 1, 1922, the Secretary of War referred to the Speaker of the House of Representatives the several propositions for the pur-

chase and lease (one offer for the lease and purchase, as a whole, the others in part) of the Muscle Shoals project, which included a lease based on the completion of the dams and hydroelectric power plants situated in the Muscle Shoals stretch of the Tennessee River, and the purchase of nitrate plant No. 1, nitrate plant No. 2, the Waco quarry, and the Gorgas Warrior River steam plant, all in the State of Alabama.

After due deliberation the Committee on Military Affairs of the House of Representatives at that time authorized and directed the acting chairman to report to the House of Representatives H. R. 11903, which embodied the provisions set forth in the offer of Henry Ford, modified by the committee and approved by Mr. Ford, with one exception. That exception was the elimination from the proposition of the Gorgas Warrior steam plant.

The final offer of Mr. Henry Ford, made on May 31, 1922, reads as follows:

FINAL PROPOSAL OF HENRY FORD FOR THE COMPLETION AND LEASING OF THE DAMS AND HYDRO-ELECTRIC POWER PLANTS AT MUSCLE SHOALS AND FOR THE PURCHASE OF NITRATE PLANT NO. 1, NITRATE PLANT NO. 2, THE WACO QUARRY, AND THE GORGAS WARRIOR RIVER STEAM PLANT, ALL IN THE STATE OF ALABAMA.

WHEREAS, The United States, through the Chief of Engineers, United States Army, invited the undersigned to submit an offer for the power to be developed at the Muscle Shoals Wilson Dam (hereinafter referred to as Dam No. 2); and

WHEREAS, the undersigned did, under date of July 8, 1921, submit to the Chief of Engineers, an offer for the consideration of the President, the Secretary of War, and Congress, which offer proposed a lease based upon the completion of Dam No. 2, and the construction of Dam No. 3 (as designated by the U. S. Engineers in H. R. Doc. 1262, 64th Congress, 1st Session, and hereinafter referred to as Dam No. 3) and of their power houses, by the United States, and the payment by the undersigned of a fixed annual rental therefor, and proposed to purchase Nitrate Plant No. 1 at Sheffield, Alabama, Nitrate Plant No. 2 at Muscle Shoals, Alabama, Waco Quarry, near Russellville, Alabama, and the Warrior Steam Plant at Gorgas, Alabama, and all transmission lines connected with said plants; and

WHEREAS, the undersigned, at the invitation of the Secretary of War, did, on January 11, 1922, submit a modification of his former proposal, based upon the construction and completion by a company to be performed by him, of all the work referred to in the offer of July 8, 1921, aforesaid, the actual cost of said work to be borne by the United States, and agreed on behalf of said company to pay four per cent (4%) of the total actual cost of completing said plants, structures, works, and improvements as annual rental for the lease thereof;

NOW, THEREFORE, in lieu of said offer of July 8, 1921, and in accordance with said modification of January 11, 1922, and modifications of January 25, 1922, the undersigned hereby submits to the Secretary of War, and through him for appropriate action by the President and Congress, the following offer, which shall become a binding agreement upon approval of same by Congress:

1. For the purpose of carrying out the terms of this agreement, the undersigned will form a corporation (hereinafter referred to as the Company), with a capital stock of \$10,000,000, or more, of which at least \$10,000,000 shall be paid in, in cash, to be controlled by the undersigned, which Company will immediately enter into and execute all necessary or appropriate instruments of contract to effectuate this agreement.

2. The Company shall complete for the United States, subject to the approval of the Chief of Engineers, U. S. Army, Dam No. 2, its locks, power house and all necessary equipment, all in accordance with the plans and specifications prepared, or to be prepared or approved by the Chief of Engineers, U. S. Army, and progressively install the hydro-electric equipment in said power house adequate for generating approximately six hundred thousand (600,000) H. P., all the work aforesaid to be performed as speedily as possible at actual cost and without profit to the Company. It is understood that the necessary lands and

flowage rights, including lands for railway and terminal connections, have been or will be acquired by the United States.

3. The Company will lease from the United States Dam No. 2, its power house, and all of its hydroelectric and operating appurtenances, except the locks, together with all lands and buildings owned or to be acquired by the United States connected with or adjacent to either end of the said Dam, for a period of one hundred (100) years from the date when structures and equipment of a capacity of one hundred thousand (100,000) horse power are constructed and installed and ready for service, and will pay to the United States as annual rental therefor, four per cent (4%) of the actual cost of acquiring lands and flowage rights, and of completing the locks, dam and power house facilities (but not including expenditures and obligations incurred prior to approval of this proposal by Congress), payable annually at the end of each lease year, except that during and for the first six (6) years of the lease period, the rentals shall be in the following amounts and payable at the following times, to wit: Two hundred thousand dollars (\$200,000) one (1) year from the date when one hundred thousand (100,000) horse power is installed and ready for service, and thereafter two hundred thousand dollars (\$200,000) annually at the end of each year for five (5) years.

4. The Company will further pay to the United States during the period of the lease of Dam No. 2 thirty-five thousand dollars (\$35,000) annually, in installments quarterly in advance, for repairs, maintenance, and operation of Dam No. 2, its gates and locks; it being understood that all necessary repairs, maintenance, and operation thereof shall be under the direction, care and responsibility of the United States during the said one hundred (100) year lease period; and the Company, at its own expense, will make all necessary renewals and repairs incident to efficient maintenance of the power house, substructures, superstructures, machinery and appliances appurtenant to said power house, and will maintain the same in efficient operating condition.

5. At all times during the period of the lease of Dam No. 2 the Company will furnish to the United States, free of charge, to be delivered at any point on the lock grounds designated by the Chief of Engineers, U. S. Army, electric power to an amount necessary for the operation of the locks, but not in excess of two hundred (200) horse power.

6. As soon as the release of suitable construction equipment and labor forces at Dam No. 2 will permit, or at an earlier date if desired by the Company, the Company shall construct and complete, subject to the approval of the Chief of Engineers, U. S. Army, for the United States, Dam No. 3, its lock, power house, and all necessary equipment, all in accordance with plans and specifications prepared and to be prepared by the Chief of Engineers, U. S. Army, or by the Company, at its option, and approved by the Chief of Engineers, U. S. Army, and progressively install the hydro-electric equipment in said power house adequate for generating approximately two hundred and fifty thousand (250,000) horse power, all the work aforesaid to be performed as speedily as possible at actual cost and without profit to the Company, it being understood that the necessary lands, flowage rights and rights-of-way shall be acquired by the United States through an agent to be named by the Company.

7. The Company will lease from the United States, Dam No. 3, its power house, and all of its hydro-electric and operating appurtenances, except the lock, together with all lands and buildings owned or to be acquired by the United States connected with or adjacent to either end of the said Dam, for a period equal to the lease term of Dam No. 2 and its hydro-electric power equipment thereat as stated in paragraph 3 hereof, in order that said respective lease terms of the two Dams and the hydro-electric equipment thereat shall expire at the same time, the said period to begin from the date when structures and equipment of a capacity of eighty thousand (80,000) horse power are constructed and installed and ready for service, and will pay to the United States as annual rental therefor, four per cent (4%) of the actual cost of acquiring lands and flowage rights, and of constructing the lock, dam and power house facilities, payable annually at the end of each lease year, except that during and for the first three (3) years of the lease period the rentals shall be in the following amounts and payable at the following times, to wit: One hundred sixty thousand dollars (\$160,000) one (1) year from the date when eighty thousand (80,000) horse power is installed and ready for service, and thereafter one hundred sixty thousand dollars (\$160,000) annually at the end of each year for two (2) years. Dams No. 2 and No. 3 shall be included in one lease.

8. The Company will further pay to the United States during the period of the lease of Dam No. 3 twenty thousand dollars (\$20,000) annually, in installments, quarterly in advance, for repairs, maintenance and operation of Dam No. 3, its gates and lock; it being understood that all necessary repairs, maintenance and operation thereof shall be under the direction, care and responsibility of the United States during the said one hundred (100) year period; and the Company at its own expense, will make all necessary renewals and repairs, incident to the efficient maintenance of the power house, substructures, superstructures, machinery and appliances appurtenant to said power house, and will maintain the same in efficient operating condition.

9. At all times during the period of the lease of Dam No. 3, the Company will furnish the United States, free of charge, to be delivered at any point on the lock grounds designated by the Chief of Engineers, U. S. Army, electric power necessary for the operation of the said lock, but not in excess of one hundred (100) horse power.

10. For the purpose of enabling the Government to create and provide a sinking fund to retire the cost of Dam No. 3 at the end of the lease period, the Company will, at the beginning of the fourth (4th) year of the lease period, and semi-annually thereafter for the remaining term of the lease, pay to the United States Government, the sum of three thousand five hundred and five dollars (\$3,505); and for the purpose of enabling the Government to create and provide a sinking fund to retire the cost of Dam No. 2 at the end of one hundred (100) years, the Company will at the beginning of the seventh (7th) year of the lease period, and semi-annually thereafter for the remaining term of the lease, pay to the United States Government the sum of nineteen thousand eight hundred and sixty-eight dollars (\$19,868).

11. The Company agrees to purchase from the United States and the United States will sell the following properties, namely:

(a) All of the property constituting Nitrate Plant No. 2 (as officially known and designated), including lands, power plants, buildings, material, machinery, fixtures, equipment, apparatus, appurtenances, tools and supplies, and the right, license and privilege to use any and all of the patents, processes, methods and designs which have been acquired and may be transferred or assigned to a purchaser of Nitrate Plant No. 2 by the United States, together with the sulphuric acid units now in storage on the premises.

(b) All of the property constituting Nitrate Plant No. 1 (as officially known and designated), including lands, power plants, buildings, material, machinery, fixtures, equipment, apparatus, appurtenances, tools, and supplies, and the right, license and privilege to use any and all of the patents, processes, methods and designs which have been acquired and may be transferred to a purchaser of Nitrate Plant No. 1 by the United States, but the Company shall not be obligated to operate Nitrate Plant No. 1 as an air nitrogen fixation plant.

(c) All of the property constituting the Waco Quarry (as officially known and designated), including rights-of-way and buildings, material, quarry tracks, machinery, railroad tracks, appurtenances, tools and supplies.

(d) All of the property constituting the steam power plant, built and now owned by the Government at Gorgas, Alabama, on the Warrior River, including lands, rights-of-way, buildings, machinery, material, fixtures, apparatus, appurtenances, tools, and supplies, and the transmission line from the Gorgas steam plant to Nitrate Plant No. 2 at Muscle Shoals, and all other transmission lines belonging to the United States and connected with any of the aforesaid Government properties.

12. The Company agrees to accept and the United States agrees to assign and transfer to the Company, all rights, title, interest, powers, and benefit belonging to or that may accrue to the United States or its legal agents as a party to its contract dated December 1, 1917, with the Alabama Power Company in connection with said Gorgas plant and transmission line, and the Company will assume all obligations and liabilities lawfully imposed upon the United States by said contract; but nothing in this paragraph shall be held to affect any question of the validity of any provision of said contract.

13. As the purchase price for the foregoing plants and properties to be conveyed to the Company by the United States, the Company will pay to the United States five million dollars (\$5,000,000) in five installments as follows: One million dollars (\$1,000,000) upon the acceptance of this offer, and one million dollars (\$1,000,000) annually thereafter until the purchase price is fully paid, with interest at the rate of five per cent (5%) per annum on deferred payments, with

the privilege of anticipating any or all such payments, possession to be delivered upon payment of the first of said installments, and deeds of conveyance to be delivered when full payment for said property has been made. Each of said deeds shall refer to or contain the provisions of this offer and said deeds shall be so drawn as to make such provisions covenants running with the land.

14. This proposal contemplates and it is agreed that the purchase price for the property aforesaid shall not be diminished by reason of depreciation due to use or wear of buildings, machinery and equipment or to the action of the elements, nor shall any claim be made for losses in or diminution of quantity of tools and supplies due to up-keep and maintenance during the period between the date hereof and the date of delivery of possession of said property; it being further understood that no inventory of the property need be taken, but that due care will be exercised by the United States in preserving and safeguarding the aforesaid real and personal property intact until possession thereof passes to the Company. If any part or parts of the aforesaid plants necessary for proper operation of same have been removed by the United States, said part or parts shall be returned when possession of said plants passes to the Company. Deeds of conveyance of real property shall warrant the title to be good and unencumbered, but in accordance with and subject to the provisions set forth in paragraph 13 hereof.

15. Inasmuch as the manufacture of commercial fertilizers for our soils and the sale and distribution of the same to the farmers and other users thereof constitute one of the principal considerations of this offer moving to the Government of the United States and its people, the Company expressly agrees that it will continuously throughout the lease period operate Nitrate Plant No. 2, using the most economical source of power at the approximate present annual capacity of its machinery and equipment in the production of nitrogen and other commercial fertilizer, mixed or unmixed according to market demand (said capacity being equal to approximately one hundred ten thousand (110,000) tons of ammonium nitrate per annum, containing approximately forty thousand (40,000) tons of fixed nitrogen). If during the lease period said Nitrate Plant No. 2 is destroyed or damaged from any cause, the Company agrees to restore such plant within a reasonable time to its former capacity, and further agrees:

(a) To determine by research whether by means of electric furnace methods and industrial chemistry there may be produced on a commercial scale fertilizer compounds of higher grade and at lower prices than farmers and other users of commercial fertilizers have in the past been able to obtain, and to determine whether in a broad way the application of electricity and industrial chemistry may accomplish for the agricultural industry of the country what they have economically accomplished for other industries, and if so found and determined, to reasonably employ such improved methods.

(b) To maintain Nitrate Plant No. 2 in its present state of readiness or its equivalent, for immediate operation in the manufacture of materials necessary in time of war for the production of explosives.

16. In order that farmers and other users of fertilizers may be supplied with fertilizers at fair prices and without excessive profits, the Company agrees that the maximum net profit which it shall make in the manufacture and sale of fertilizer products shall not exceed eight per cent (8%) of the fair actual annual cost of production thereof. In order that this provision may be carried out the Company agrees to the creation of a Board of not more than nine (9) voting members, chosen as follows: The three (3) leading representatives farm organizations, national in fact, namely: The American Farm Bureau Federation, The National Grange, The Farmers' Educational and Co-operative Union of America or their successor or successors (said successor or successors to be determined, in case of controversy, by the Secretary of Agriculture) shall each designate not more than seven (7) candidates for said Board in the first instance and thereafter, for succession in office, not more than three (3) candidates. The President shall nominate for membership on this Board not more than seven (7) of these candidates, selected to give representation to each of the above mentioned organizations, said nominations to be made subject to confirmation by the Senate, and there shall be two voting members of said Board selected by the Company: Provided, That not more than one shall be nominated by the President from the same state; that if the Senate shall not confirm all of said seven nominees the President shall send additional names from the said list of candidates until the Senate shall have confirmed seven: Provided further, That if either or any of said farm organizations or its or their successors by reason

of the terms of this proposal or any contracts made in furtherance of its terms, the Company agrees that the Attorney-General may upon the request of the Secretary of War institute proceedings in equity in the District Court of the United States for the Northern District of Alabama for the purpose of cancelling and terminating the lease of Dam No. 2 or Dam No. 3, or both of them, because of such violation or for the purpose of remedying or correcting by injunction, mandamus or other process, any act of commission or omission in violation of the terms of this proposal or any contract made in furtherance thereof.

20. The above proposals are submitted for acceptance as a whole and not in part. Upon acceptance, the promises, undertakings, and obligations shall be binding upon the United States, and jointly and severally upon the undersigned, his heirs, representatives and assigns, and the Company, its successors and assigns; and all the necessary contracts, leases, deeds, and other instruments necessary or appropriate to effectuate the purposes of this proposal shall be duly executed and delivered by the respective parties above mentioned.

Approved and signed by me at Dearborn, Mich., this thirty-first day of May, 1922.

HENRY FORD.

The bill H. R. 11903 was placed on the calendar, but was not reached for consideration prior to the adjournment of the Sixty-seventh Congress on March 4, 1923. Subsequent to the adjournment of Congress the Secretary of War conveyed to the Alabama Power Co. the interest of the Government in the Gorgas Warrior steam plant for a consideration amounting to \$3,472,487.25.

During the present session of the Sixty-eighth Congress a number of bills have been introduced providing for the disposition of the Muscle Shoals project. Among them are H. R. 8, by Mr. Madden, which is identical with H. R. 11903, Sixty-seventh Congress, with the exception of a provision providing for the construction of a steam plant on the Warrior River and limiting the expenditure to the Government to the amount received by the Government for its interest in the Gorgas Warrior River steam plant; H. R. 518, by Mr. McKenzie, which is identical with H. R. 11903, Sixty-seventh Congress, introduced by Mr. McKenzie and reported to the House at the last session, but which failed of action by the House; H. R. 3222, by Mr. Dickinson, which is practically identical with H. R. 518, with the exception that it provides that the proposition made by Mr. Ford shall come under and be subject to the provisions of the Federal water power act; and H. R. 6300, by Mr. Hull, embodying the proposals by the Associated Power Companies, submitted to the Secretary of War, and through him to the Speaker of the House of Representatives.

Open hearings on the subject were begun by the committee shortly after the organization of the House was completed, and in response to the request of your committee that any person interested submit his propositions through the office of the Secretary of War promptly, a number of proposals were submitted.

Hearings continued practically every day, and those favoring some one of the bills above enumerated were heard, and in addition, others appeared giving outlines of their proposals. Among these were representatives of the Union Carbide Co.; Mr. Elon H. Hooker, representing himself, Mr. W. W. Atterbury and Mr. James G. White; and Mr. J. H. Levering.

Before and during these hearings notice was given that any person that desired to make an offer or desired to be heard on any offer would be accorded an opportunity to do so. This policy was carried out and the hearings were extended several times for the benefit of those who desired to make statements.

Since no direct word had been received from Mr. Henry Ford during the consideration of this legislation in this session, the question arose whether his offer of May 31, 1922, still stood. The chairman of the Military Affairs Committee, Hon. Julius Kahn, telegraphed Mr. Ford. Mr. Ford replied he still stood by his offer of May 31, 1922, and that the provisions of the McKenzie bill with the so-called Madden amendments would be satisfactory to him.

In order that the Members of the House may have a clear conception of the Henry Ford proposal, we deem it proper at this point in the report to insert a copy of the Secretary of War's letter submitting the same to the Speaker of the House, together with a copy of the original proposal submitted to the committee, the report of Maj. Gen. Lansing H. Beach, Chief of Engineers, United States Army, on the same, including table showing amount of expenditures to date of report, the report of Maj. Gen. C. C. Williams, Chief of Ordnance, United States Army; the opinion of the Judge Advocate General of the United States Army, covering the legal questions involved in the contracts between the Government and the Alabama Power Co. and the Government and the Air Nitrates Corporation; and also the study of the Finance Division of the War Department.

It is pertinent to state that the above-mentioned opinion of the Judge Advocate General was confirmed by the Attorney General of the United States in an opinion submitted to the committee and made a part of this report.

WAR DEPARTMENT,
Washington, February 1, 1922.

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIR: Soon after I assumed the duties of Secretary of War, suggestions were made to me by those interested in the development of the power plant and navigation at Muscle Shoals that I should recommend to Congress that an appropriation be made to complete Dam No. 2 (Wilson Dam). In response to such suggestions I stated that when a proposal was made which would assure the Government a reasonable return on at least the additional money required to complete the project and an effective use of the development for commercial purposes, I would send it to Congress, as the power to dispose of these plants is vested in that branch of the Government.

On July 8, 1921, in consequence of this statement and of some negotiations with the Chief of Engineers, United States Army, Mr. Henry Ford presented a proposal in writing, in which he offered a fixed annual rental of \$1,200,000 for Dam No. 2 and its power plant and appurtenances, such rental to commence six years after the installation of equipment capable of producing 100,000 horsepower, and a rental of \$200,000 to be paid annually during the first six years of the lease. On proposed Dam No. 3 he offered a fixed annual rental of \$480,000 commencing three years after 80,000 horsepower should be developed, and \$160,000 per annum for the first three years of the lease period. Provision was made for certain upkeep charges and payments to be made toward a sinking fund estimated as sufficient to amortize approximately \$48,000,000 of the cost of the dams. Under this proposal the United States was to undertake the completion of Dam No. 2 and the construction of Dam No. 3. This offer was conditioned upon the United States selling to Mr. Ford nitrate plants No. 1 and No. 2, the Waco quarry and its equipment, and the Gorgas-Warrior steam plant and transmission line and appurtenances, all for the price of \$5,000,000.

The cost of completing the two dams is estimated by the Chief of Engineers to be at this time, in round figures, \$50,000,000. Consequently I did not believe that the proposed rental was an adequate return on the Government's proposed investment and suggested that Mr. Ford modify his offer so that it would be based upon an annual payment equivalent to a rate of interest on the total cost to the Government of completing the projects. On January 13, 1922, Mr. Ford presented to me a proposed modification of his previous offer, by which he agreed to undertake the construction and completion, at actual cost and

without profit, of the work referred to in his offer of July 8, 1921, and when completed and ready for operation he offered to pay the United States as annual rental of the property an amount equal to 4 per cent of the total cost of such construction.

At my suggestion Mr. Ford placed in one instrument his offer as modified, which was signed by him on January 25, 1922, and delivered to me on January 27, and which I have the honor to transmit herewith for such action as Congress may deem appropriate.

In brief, Mr. Ford offers to undertake the completion of Dam No. 2 and the construction of Dam No. 3 according to the Government's plans, for which he shall be reimbursed the actual cost, and to lease the dams and power plants at an annual rental equivalent to 4 per cent of the cost to the Government of completing Dam No. 2 and constructing Dam No. 3 (exclusive of the cost of acquiring lands and flowage rights necessary for Dam No. 3). The rentals at 4 per cent are to commence, respectively, in six years after Dam No. 2 has been completed to the point where equipment for 100,000 horsepower is installed and ready for service, and three years after the equipment to develop 80,000 horsepower is installed and ready for service at Dam No. 3. In the meantime, during the six-year and three-year periods, respectively, he offers to pay upon Dam No. 2 an annual rental of \$200,000, and on Dam No. 3, \$160,000. His offer places upon the United States the responsibility for repair and maintenance of the two dams other than the power houses, which power houses and electrical equipment he agrees to maintain at his own expense in efficient operating condition.

As compensation to the United States for the repair and upkeep of Dam No. 2 and locks, he offers to pay the sum of \$35,000 annually, and of Dam No. 3 and lock, the sum of \$20,000 annually. He also agrees to furnish electricity for operating the locks at each of these dams without charge to the Government, and in addition he agrees to pay the sum of \$23,373 semiannually for the purpose of building up a sinking fund to return to the United States at the end of the lease period a sum of money which he estimates, if invested at 4 per cent, will be approximately \$49,000,000. As a condition of this offer he asks that the United States sell to him nitrate plants Nos. 1 and 2, the Waco quarry, and the Gorgas-Warrior steam plant, with all appurtenances, for the sum of \$5,000,000, payable \$1,000,000 down and the balance in annual installments of \$1,000,000 each, with 5 per cent interest on deferred payments. As a further consideration to the Government he agrees to operate nitrate plant No. 2 at the approximate present annual capacity of its machinery and equipment in the production of nitrogen and other fertilizer compounds throughout the lease period, and to maintain it in its present state of readiness, or its equivalent, for immediate operation in the manufacture of materials necessary in time of war for the production of explosives. He further agrees that the fertilizer produced at nitrate plant No. 2 shall not be sold at a profit in excess of 8 per cent of the actual annual cost of production thereof, and to turn over to the United States nitrate plant No. 2 whenever it shall be required for the national defense. He likewise asks for a preference in opportunity to purchase or lease the property at the end of the lease period and for the right, for a period not stated, to be supplied with electric power at reasonable rates in an amount equal to his average consumption during the previous 10 years in case the plant is operated and his company does not purchase or lease it. He also states that his proposal must be accepted as a whole and not in part.

In order that you may the more readily understand just what Mr. Ford is proposing to buy and to lease, I shall state briefly what has occurred in connection with Government developments at Muscle Shoals, and the character of the Government-owned property there.

Without going into the preliminary history in connection with the proposals for the development and improvement of the Tennessee River, which might, if necessary, be traced to the year 1827, it is deemed sufficient for present purposes to invite attention to the letter over the signature of the Secretary of War, dated June 28, 1916, and printed as House Document No. 1262, Sixty-fourth Congress, first session, transmitting, with a letter from the Chief of Engineers, reports on preliminary examination and survey of Tennessee River between Browns Island and the railroad bridge below the city of Florence, wherein is contained a full discussion of Dam No. 2, now known as the Wilson Dam, and the proposed Dam No. 3, referred to by Mr. Ford, but as to which no construction work has yet been undertaken. The commencement of construction work on the Dam No. 2 resulted from the authority contained in section 124 of the national defense act of June 3, 1916 (39 Stat. 166, 215), under which the Presi-

dent, in a letter dated February 23, 1918, authorized the construction of said dam, as a result of which allotments have been made at various times amounting to \$17,159,610.42 for its construction. The total expenditures on Dam No. 2 have been \$16,251,038.14; the greater part of the balance unexpended will be required to meet payments on contracts for power machinery for the dam. A large construction camp has been built, a railroad track laid to the site, complete construction plant assembled, and the dam itself approximately 30 per cent completed.

Dam No. 2, when completed, will have a total length of 4,267 feet, of which 2,890 feet is a spillway section, 1,221 feet will be the power-house section, and 156 feet abutments and approaches. The height of the dam above present low water is 95 feet, including crest gates 18 feet in height. The total height from the bottom of the excavation for the foundations to the roadway on top of the dam will be 132 feet. There have been no expenditures on Dam No. 3, which is located 14.7 miles upstream from Dam No. 2. Dam No. 2, when constructed, will render 14.7 miles of Muscle Shoals navigable, while Dam No. 3 will overflow the remaining portion of the rapids and will improve conditions of navigation for a distance of 63 additional miles. The present estimates of the Engineer Department for the completion of both Dam No. 2 and Dam No. 3 is \$50,000,000. Engineers for Mr. Ford have presented a lower estimate, but Mr. Ford has not seen fit to guarantee the construction for this lower figure.

Situated about 6 miles southwest from Dam No. 2, at Sheffield, Culbert County, Ala., adjacent to the city and along the Tennessee River, is United States nitrate plant No. 1, constructed by the United States during the war under an agreement with the General Chemical Co., approved by the Secretary of War on June 14, 1917, for use of its process and at a total cost of \$12,887,941.31. The plant was built under the supervision of the Ordnance Department of the Army to produce 22,000 tons of ammonium nitrate per annum, using the direct synthetic ammonia (Haber process) of the General Chemical Co. The details of the process were not sufficiently perfected, however, and the plant proved unsuccessful in a test operation. The construction of the plant was started from an appropriation contained in the national defense act of June 3, 1916, and completed from appropriations made for the national security and defense, armament of fortifications and ordnance service. The total acreage of land embraced within the plant site is approximately 19,000 acres. The plant is now in an idle, stand-by condition, with part of the land leased for farm purposes. The cost of maintenance during the fiscal year 1921 was \$75,506.42.

At Muscle Shoals, Culbert County, Ala., 4 miles northeast of nitrate plant No. 1, and 2 miles distant from Dam No. 2, is located United States nitrate plant No. 2. This plant was constructed under contract with the Air Nitrates Corporation for the production of munitions of war under contract dated and executed June 8, 1918, at a total expense, including Waco quarry, of \$67,555,355.09. The plant was built for an estimated capacity of 110,000 tons of ammonium nitrate per annum, using the cyanamid process of the American Cyanamid Co. The plant was successful in a two-weeks test operation with one-fifth of the plant in use, during which time 1,700 tons of ammonium nitrate were produced, as well as 2,200 tons of cyanamid not converted. The cost of building said plant was paid for out of the appropriations for armament of fortifications and ordnance service. The plant site, not including Waco quarry, embraces 2,306 acres, acquired at a cost of \$237,711. The plant is now in an idle stand-by condition, except the power plant located thereon, which was leased, together with a transmission line, to the Alabama Power Co., under the provisions of the act of July 28, 1892 (27 Stat., 321), by an instrument dated November 17, 1921, but revocable at any time. The cost of maintenance of said plant for the fiscal year 1921, including Waco quarry, was \$201,674.63.

Situated about 20 miles south of plant No. 2 in Franklin County, and 5 miles southeast of Russellville, Ala., is located what is known as Waco quarry, acquired by the United States in connection with the operation of nitrate plant No. 2, embracing an area of 460 acres, acquired at a total cost of \$52,962.88. This quarry has a crushing plant sufficient to produce 2,000 tons of crushed and sized limestone per day. The total cost of said quarry, including buildings and plant, was \$1,179,076.80, included, however, as an element of the total cost of nitrate plant No. 2. The plant is now in an idle stand-by condition and a portion of the land is leased for farm purposes.

Situated about 88 miles southeast of nitrate plant No. 2, in Walker County, Ala., is located what is known as the Government-owned Warrior steam plant at Gorgas, Ala. This plant was constructed under contract with the Alabama

Power Co., dated December 1, 1917, on land owned or acquired by the said company. It was built in the vicinity of a coal mine with a view to using coal direct from the mines. It has a capacity of 30,000 kilowatts, and the electric power produced at said plant is carried over a transmission line extending a distance of about 88 miles to nitrate plant No. 2, to furnish power for the operation of said plant. The total cost of the plant was \$4,979,782.33. It was built and paid for from appropriations for armament of fortifications. This property is now being operated as a part of the Alabama Power Co.'s system on a rental basis as provided for in the contract for the construction thereof, and during the calendar year 1921 netted the Government approximately \$75,000.

Some question was raised in my mind as to the binding effect of certain provisions appearing in the contract for the construction of nitrate plant No. 2 by the Air Nitrates Corporation and in the contract for the construction of the Gorgas Warrior steam plant and transmission lines by the Alabama Power Co., which purported to give said companies options to purchase under certain conditions, but I have submitted these questions to the Acting Judge Advocate General, who is of the opinion that at the time these contracts were made there was no authority to sell said properties, and hence no authority to give an option for the purchase of same. He holds that as the Constitution vests in Congress the sole power to dispose of and make all needful rules and regulations regarding the property of the United States, and Congress not having authorized the Secretary of War to sell the same, the plenary power to dispose of such property still rests solely in Congress. The Acting Judge Advocate General has also held that the provision contained in section 124 of the national defense act directing that the plant therein authorized be operated solely by the Government and not in conjunction with any other industry or enterprise carried on by private capital, is applicable to the plant as a whole and is a restraint upon its sale. This construction, if justified, would prevent the lease or rental of the plant for private operation. The solution of the numerous legal questions involved naturally occasioned more or less delay in the consideration of the proposals.

In this connection, I may say that the Air Nitrates Corporation has notified me in writing that it claims the right to exercise the option, which it claims to have under the terms of its construction contract, to purchase nitrate plant No. 2 on as favorable terms as those offered by Mr. Ford for the property, should the United States determine to accept Mr. Ford's offer. The Alabama Power Co. may make a similar claim in regard to the Warrior plant and line.

To briefly summarize Mr. Ford's offer for the above properties, the considerations running to the Government are:

(a) Four (4) per cent on part of the capital necessary to complete the construction of the power project (no interest is proposed to be paid upon that part of the Government's investment which goes to pay for lands and flowage rights for Dam No. 3, which item is estimated by the engineers to exceed \$2,000,000 in probable cost).

(b) The payment of a sum semiannually into a sinking fund calculated to produce about \$49,000,000 at the end of the lease periods. This payment amounts to \$46,746 annually. In other words, Mr. Ford proposes to pay approximately \$49,000,000 at the end of the lease period provided the Government has been able to invest his payments at 4 per cent per annum.

(c) Mr. Ford proposes to pay \$35,000 a year for the upkeep of Dam No. 2 and its locks, and the sum of \$20,000 a year for the upkeep of Dam No. 3 and its lock. These payments are expected to meet the ordinary upkeep expense with which the Government is charged. Mr. Ford assumes the responsibility for upkeep and repair of the power houses and equipment, so that ultimately such equipment is expected to be turned back to the Government in approximately as good condition as when received.

(d) The proposal requires Mr. Ford's company to operate nitrate plant No. 2 to its approximate present capacity, which is estimated to be a production of 110,000 tons of ammonium nitrate per annum, and to sell such product at a price not to return a net profit in excess "of 8 per cent of the actual annual cost of production."

(e) Mr. Ford's company is to maintain nitrate plant No. 2 in its present state of readiness for immediate operation for the production of explosives, and is to turn it over to the Government, together with such of its personnel as may be required for the national defense.

(f) The Government will be saved the expense of maintaining and operating the present imperfect facilities for navigation at Muscle Shoals, amounting to from \$35,000 to \$85,000 per annum.

There are a number of advantages to the Government in the present proposal that were not apparent in the first offer. Mr. Ford's original proposal of July 8, 1921, contained two paragraphs dealing with the matter of amortization of the cost of construction of the two dams. The first of these paragraphs was numbered 2, and reads as follows:

"At the beginning of the seventh year of the lease period, and annually thereafter, the company will pay to the United States a sum not greater than thirty-nine thousand five hundred thirty-seven dollars (\$39,537) to retire, during the remaining period of ninety-four (94) years, the total cost of the Wilson Dam and its power house, substructures, superstructures, machinery, and appliances, including locks, all taken at forty million dollars (\$40,000,000); the sinking fund investments to bear the highest rate of interest obtainable, but not less than four per cent (4 per cent) per annum."

The other paragraph was numbered 7 and reads as follows:

"At the beginning of the fourth (4th) year of the lease period, and annually thereafter, the company will pay to the United States a sum not greater than seven thousand ten dollars (\$7,010), to retire, during the remaining period of ninety-seven (97) years, the total cost of Dam No. 3 and its power house, substructures, superstructures, machinery and appliances, including lock, all taken at eight million dollars (\$8,000,000); the sinking fund investments to bear the highest rate of interests obtainable, but not less than four per cent (4 per cent) per annum."

In the present proposal the subject of amortization is covered in one paragraph, numbered 10, which reads as follows:

"For the purpose of enabling the Government to create and provide a sinking fund to retire the cost of Dam No. 3 at the end of one hundred (100) years, the company will, at the beginning of the fourth (4th) year of the lease period, and semiannually thereafter for the remaining term of the lease, pay to the United States Government, the sum of three thousand five hundred and five dollars (\$3,505); and for the purpose of enabling the Government to create and provide a sinking fund to retire the cost of Dam No. 2 at the end of one hundred (100) years, the company will at the beginning of the seventh (7th) year of the lease period, and semiannually thereafter for the remaining term of the lease, pay to the United States Government the sum of nineteen thousand eight hundred and sixty-eight dollars (\$19,868)."

It will be observed that the provision for amortization in the last proposal is very much more favorable to the United States than it was in the offer of July 8, 1921. By the earlier proposal the maximum amount which the Government could realize from the payments made by Mr. Ford at the end of the lease periods would be not to exceed \$48,000,000 (\$40,000,000 in the case of Dam No. 2 and \$8,000,000 in the case of Dam No. 3). The annual payments were in no case to exceed the amounts stipulated, which are the same in the present proposal as in the former proposal, but the former proposal contemplated a reduction in amount of annual payments to correspond to the excess over 4 per cent interest which might be earned by the sinking fund, whereas under the present proposal the fixed installments for amortization are to be paid regardless of the rate of interest earned by the fund. Therefore, if the United States should be able to invest the money at a higher rate of interest than four (4) per cent, the sinking fund at the end of the lease periods would amount to very much more than \$48,000,000. This may be best shown by the following table:

Amount retired by Mr. Ford's sinking fund at various rates of interest, compounded semiannually.

Account of—	Semi-annual payments.	Life of fund (years).	Amount retired at following interest rates.				
			4 per cent.	4½ per cent.	4¾ per cent.	5 per cent.	6 per cent.
Dam No. 2.....	\$19,868	94	\$40,919,798	\$48,783,949	\$58,319,359	\$83,718,097	\$176,030,810
Dam No. 3.....	3,505	97	8,152,137	9,786,054	11,780,690	17,150,545	37,103,880
Total.....			49,071,935	58,570,003	70,100,049	100,868,642	213,134,690

NOTE.—Payments are to be made into sinking fund semiannually, at the beginning of each semiannual interest period. This sinking (or retirement) fund has nothing to do with Mr. Ford's interest payments, but represents a separate fund to be invested at the highest interest rate obtainable for the purpose of returning to the Government within the lease period the largest amount possible, with the above semiannual payments, consistent with safe investment.

Should the dams be constructed at a cost of not to exceed \$42,000,000, as estimated by Mr. Ford's engineers, there would be left to apply on the investment of the Government heretofore made whatever the amortization payments would produce in excess of the \$42,000,000. If the amortization fund should be invested continuously at 4 per cent there would be at least \$7,000,000 to be thus applied, but should it be invested at a greater rate of interest, the amount would be increased as shown by the table.

The provision for renewal of the lease which was contained in the proposal of July 8, 1921, was numbered 11, and reads as follows:

"At any time prior to the expiration of said lease period of one hundred (100) years the company shall have the right to negotiate with the Government for a renewal of the leases for the two above dams, their power houses, etc. In the event of disagreement as to terms of the renewal, the United States and the company shall each appoint an arbitrator, and these arbitrators shall choose a third. The decision of the arbitration board of three shall be final and binding upon both parties."

The effect of this provision was to bind the United States to a renewal of the lease for 100 years on such terms as should be determined to be just by a board of arbitration. Under the new proposal the renewal clause is contained in paragraph 17, which reads as follows:

"In order that said company may be supplied with electric power and the farmers with fertilizers after the termination of the said one-hundred-year leases, should the United States elect not to operate said power plants but determine to lease or dispose of same, the company shall have the preferred right to negotiate with the United States for such lease or purchase and upon such terms as may then be agreed upon. If the said leases are not renewed or the property covered thereby is not sold to said company, its successors or assigns, any operation or disposal thereof shall not deprive the company, its successors or assigns, of the right to be supplied with electric power at reasonable rates and in amount equal to its needs, but not in excess of the average amount used by it annually during the previous ten years."

This paragraph does not bind the United States to a renewal of the lease and is in no way an attempt to control the policy of Congress beyond the one-hundred-year period of the present lease, except to preserve to Mr. Ford's company "the preferred right to negotiate with the United States for such lease or purchase and upon such terms as may then be agreed upon." It also attempts to preserve for the company a right to be supplied with electric power, for a period not stated, "at reasonable rates" in the event the power plants are operated or disposed of to some one other than the company.

In Mr. Ford's offer of July 8, 1921, no provision was made, except possibly by inference, as to who should bear the expense of renewals, repairs, and maintenance on the power houses, machinery, and appliances which will be erected and installed in connection with the dams. Paragraphs 4 and 8 of the present proposal impose the obligation upon Mr. Ford's company of making such renewals and repairs and effecting such maintenance at its own expense. These provisions impose upon Mr. Ford a considerable obligation.

Under the first proposal the United States was to undertake the building of the dams and power plants, but under the present offer Mr. Ford's company is to do the construction work in accordance with plans and specifications prepared or approved by the Chief of Engineers.

The proposal of July 8, 1921, contained no provision for a termination of the leases in case of default. Paragraph 18 of the present proposal applies substantially the same provisions to Mr. Ford's proposed leases as are contained in the present water-power act.

Paragraph 19 of the present proposal, except the first sentence thereof, had no counterpart in the original proposal of July 8, 1921. The new matter reads as follows:

"Upon acceptance, the promises, undertakings, and obligations shall be binding upon the United States, and jointly and severally upon the undersigned, his heirs, representatives, and assigns, and the company, its successors and assigns; and all the necessary contracts, leases, deeds, and other instruments necessary or appropriate to effectuate the purposes of this proposal shall be duly executed and delivered by the respective parties above mentioned."

Apparently this is an attempt on Mr. Ford's part to express a personal obligation to assure the performance of the contracts which are to be made by the company which he is to organize. It might be contended that this language is susceptible of a construction to the effect that Mr. Ford is personally bound

only to see that his company enters into the contracts required to carry out the terms of the proposal, and this point should be cleared up so that there can be no question as to its proper construction. There should be some assurance that the contracts made by the proposed company will be carried out or some penalty imposed for failure to perform.

In the event Mr. Ford's proposal is accepted, the Government must make new appropriations amounting to \$40,000,000 to \$50,000,000, of which Mr. Ford's company will have the benefit for approximately 100 years at 4 per cent. The company is, of course, bound to keep nitrate plant No. 2 in a condition to produce explosives, which, as a matter of preparedness, is of great value to the Government, as, no doubt, a plant fully organized and in production would be available far sooner than one maintained merely in stand-by. Nevertheless, Mr. Ford is offering but \$5,000,000 for the title to the two nitrate plants, the Waco quarry, the Gorgas-Warrior steam plant, transmission lines, and appurtenances. That Congress may the better understand the value of the property for which Mr. Ford is offering this \$5,000,000, I am attaching to this letter, as Exhibit A, a statement prepared by the Chief of Ordnance showing the cost and estimated salvage value of these properties. From the table contained in this statement it will be seen that these properties cost the United States approximately \$85,000,000 and that as scrap they are estimated to be worth \$8,812,000. However, the last column of the table in Exhibit A indicates that the Chief of Ordnance believes the War Department can dispose of the property for \$16,272,000. Mr. Ford is bound by his proposal to operate nitrate plant No. 2, but there is no legal obstacle to prevent his disposing of the other properties to which he gets title.

Should he be able to obtain what the Chief of Ordnance estimates that the Government can secure for the various items, namely, \$3,000,000 for the Warrior plants, which have an installation of 40,000 horsepower, and \$600,000 for nitrate plant No. 1, and dispose of the Warrior-Muscle Shoals transmission line as a transmission line and not as scrap for \$675,000, and should he obtain \$357,000 for the Waco quarry he would have left the nitrate plant No. 2, with its 80,000-horsepower steam plant, at a cost to him of less than \$400,000. The interest on the proceeds of such possible sales would amount to a very large sum during the terms of the proposed contract. The present revenue from rental of the power plant at nitrate plant No. 2 is a minimum of \$120,000 per annum with a possibility that in event of operation it may run to \$260,000. The cost of maintenance of nitrate plant No. 2 was approximately \$200,000 during the fiscal year 1921. The total horsepower developed by the three steam plants to which Mr. Ford will get title is 125,000, which practically doubles the all-season or primary horsepower to be developed at Dam No. 2 (approximately 500,000 of the horsepower that is to be developed at Dam No. 2 will not be available 365 days in the year).

Inasmuch as I am without authority in law to accept Mr. Ford's offer or dispose of the property as a whole, either by sale or by lease, it is peculiarly the province of Congress to weigh the considerations which will pass to the respective parties to the proposed arrangement and to determine whether or not the advantage to the Government in having nitrate plant No. 2 maintained in readiness for the manufacture of explosives and in actual production of fertilizer, together with the improvements to navigation, is of sufficient importance to justify the proposed departure from the present policy of the law in regard to dealing with the water-power resources of the Nation, and to warrant leasing to Mr. Ford Government property so for long a period at the rental proposed.

If Mr. Ford's proposal be accepted by Congress, I suggest that there should be certain modifications made to safeguard the Government's interest. As heretofore stated, there should be some assurance that the contracts made by his proposed company will be carried out.

I also suggest that the cost of acquiring the lands and flowage rights necessary for Dam No. 3 should be included in the sum upon which Mr. Ford is to pay 4 per cent interest as rent. The omission of the cost of these lands from this computation is more serious than would be the omission of the provision for a sinking fund, for the annual interest at 4 per cent on the cost of such lands and rights, if used for that purpose, would amortize a sum much larger than that provided for in paragraph 10 of Mr. Ford's proposal.

In case the proposed company sells any or all power developed at either or both of these dams, it should be required to do so under terms and conditions imposed by the Federal Power Commission or the Public Service Commission of Alabama, in the manner required of other power companies.

I believe it would be better policy to limit the contract to a term of 50 years, to conform to the established policy of the Federal Government as set out in the

water power act. In my opinion, a contract such as that proposed, for a period of 100 years, is not a wise general policy, in view of the unknown possibilities surrounding water-power developments and the probability of changes which may be made, especially in the transmission of power.

While paragraphs 4 and 8 of the present proposal provide that Mr. Ford's company is to pay to the United States annually the sum of \$35,000 on Dam No. 2 and \$20,000 on Dam No. 3 for repairs, maintenance, and operation of the dams, gates, and locks, Congress may well consider whether it would be more desirable to have Mr. Ford maintain the property and omit these payments.

If Mr. Ford's proposal be not accepted, it is my opinion that Dam No. 2 (Wilson Dam) should be completed by the Government, and that the power requirements for commercial purposes, the benefits to navigation, as well as the possible needs of the Government, would warrant this expenditure. If this were done, the Government may itself undertake to sell the product to the best advantage. In such case the amount of the Government's present proposed investment would be very materially reduced, because Dam No. 3, costing from \$18,000,000 to \$25,000,000, would not be built. At Dam No. 2 it would not be necessary to make the full installation of power plant until the market should require such installation.

This partial installation would effect a saving of present investment in at least the sum of \$3,000,000, leaving, according to the Chief of Engineers' estimate, not to exceed \$22,000,000 to be invested by the Government at this time, instead of \$40,000,000 to \$50,000,000. The analysis made by the Chief of Engineers (hereto attached as Exhibit B) shows a loss in excess of \$15,000,000 due to delay in the receipt of returns from rentals. Such a large loss would hardly be justified in case the investment is to ultimately bear but 4 per cent interest if there were not other considerations which are beneficial both to the Government and the people of that vicinity.

At this time when there is a large amount of unemployment it is not without importance to consider the advantage to the Nation of the employment of the large amount of labor required in undertaking this development. I therefore urge that Congress give early consideration to this matter, not only to settle a controverted question, but to furnish employment on a large scale.

I am attaching hereto the following exhibits which may prove helpful to Congress:

- Exhibit A: Proposal of Henry Ford dated July 8, 1921;
- Exhibit B: Letter from Henry Ford dated January 11, 1922, modifying the proposal of July 8, 1921;
- Exhibit C: Proposal of Henry Ford dated January 25, 1922;
- Exhibit D: Memorandum from the Chief of Ordnance;
- Exhibit E: Memorandum from the Chief of Engineers;
- Exhibit F: Cost statement of nitrate plants No. 1 and No. 2 and Warrior-Sheffield power station and transmission line; and
- Exhibit G: Memorandum from Maj. John A. Smith, Judge Advocate General's Office.

I shall be glad to place at the disposal of Congress any additional information which it may desire.

Respectfully,

JOHN W. WEEKS, *Secretary of War.*

EXHIBIT A.

DEARBORN, MICH., July 8, 1921.

Gen. LANSING H. BEACH,

Chief of Engineers, United States Army, Washington, D. C.

SIR: In response to your advice that the Government invites an offer for the power at the Muscle Shoals Wilson Dam, on my part or on the part of a company to be formed by me (and throughout this proposal to be called the company), I hereby and through your place at the disposal of the President, the Secretary of War, and Congress the following tender:

1. If the United States will promptly resume construction work on the Wilson Dam, and as speedily as possible complete the construction of the dam, and progressively install hydroelectric facilities and equipment for generating 600,000 horsepower, then the company will agree to lease from the United States the Wilson Dam, its power house, and all of its hydroelectric and operating appurte-

nances, together with all lands and buildings owned by the United States, connected with and adjacent to either end of the Wilson Dam, for a period of one hundred (100) years from the date of the completion of the dam and its power-house facilities; and the company will pay to the United States six (6) per cent on the remaining cost of the locks, the dam, and power-house facilities, taken at twenty million dollars (\$20,000,000), in payments of one million two hundred thousand (\$1,200,000) annually, except that during the first six years of the lease period payments shall begin and be made annually as follows:

Two hundred thousand dollars (\$200,000) one year from the date when 100,000 horsepower is generated and continuously ready for service, and thereafter two hundred thousand dollars (\$200,000) annually at the end of each year for five years. After the first six years payment of one million two hundred thousand dollars (\$1,200,000) shall be made annually, at the end of each calendar year, during the lease period.

2. At the beginning of the seventh year of the lease period, and annually thereafter, the company will pay to the United States a sum not greater than thirty-nine thousand five hundred thirty-seven dollars (\$39,537) to retire, during the remaining period of ninety-four (94) years, the total cost of the Wilson Dam and its power house, substructures, superstructures, machinery and appliances, including locks, all taken at forty million dollars (\$40,000,000); the sinking fund investments to bear the highest rate of interest obtainable, but not less than four per cent (4 per cent) per annum.

3. The company will further agree to pay to the United States thirty-five thousand dollars (\$35,000) annually for repairs, maintenance, and operation of the dam, gates, and locks at Wilson Dam; all repairs, maintenance, and operation of the same to be under the direction, care, and responsibility of the United States during the hundred (100) year period.

4. The company will furnish the United States, free of charge, delivered at a point on the lock grounds designated by the Chief of Engineers, electric power not to exceed two hundred (200) horsepower, for the operation of the locks.

5. If the United States shall accept the above proposal for leasing the Wilson Dam and its power installation, then as a condition of acceptance the company will ask that, immediately upon the release of suitable construction equipment and facilities at the Wilson Dam, and upon the release of labor forces, the United States will forthwith proceed to construct and fully complete with reasonable promptness Dam No. 3, as designed and proposed by the United States Engineers, the power installation at Dam No. 3 to be taken in this proposal at two hundred fifty thousand (250,000) horsepower.

6. When the lock, dam, and power house installation at Dam No. 3 are completed, the company offers to lease Dam No. 3, its power house and all of its hydroelectric and operating appurtenances for a period of one hundred (100) years from the date of the completion of the dam and its power house facilities, and the company will pay to the United States six per cent (6 per cent) on the cost of the dam, lock, and power house facilities, taken at a cost of eight million dollars (\$8,000,000), in payments of four hundred eighty thousand dollars (\$480,000) annually, except that during the first three years of the lease period payments shall begin and be made annually as follows:

One hundred sixty thousand dollars (\$160,000) one (1) year from the date when eighty thousand (80,000) horsepower is generated and continuously ready for service, and thereafter one hundred sixty thousand dollars (\$160,000) annually at the end of each year for two years. If and when, after the first three years, the entire power-house generating equipment of two hundred fifty thousand (250,000) horsepower is continuously ready for service, payments of four hundred eighty thousand dollars (\$480,000) shall be made annually at the end of each calendar year during the remaining ninety-seven (97) years of the lease period.

7. At the beginning of the fourth (4th) year of the lease period, and annually thereafter, the company will pay to the United States a sum not greater than seven thousand and ten dollars (\$7,010), to retire during the remaining period of ninety-seven (97) years the total cost of Dam No. 3 and its power house, substructures, superstructures, machinery, and appliances, including lock, all taken at eight million dollars (\$8,000,000), the sinking-fund investments to bear the highest rate of interest obtainable, but not less than four (4) per cent per annum.

8. The company will further agree to pay to the United States twenty thousand dollars (\$20,000) annually for repairs, maintenance, and operation of dam, gates, and lock at Dam No. 3; all repairs, maintenance, and operation of the same to be under the direction, care, and responsibility of the United States during the one hundred (100) year period.

9. The company will furnish the United States, free of charge, at Dam No. 3, to be delivered at a point on the lock grounds designated by the Chief of Engineers, electric power not in excess of one hundred (100) horsepower for the operation of the lock.

10. If the United States shall accept the above several proposals in their entirety, then the company offers to purchase from the United States the following properties, viz:

(a) All of the property at nitrate plant No. 2 and its adjacent steam-power plant, land, building, material, machinery, fixtures, equipment, apparatus, appurtenances, tools, supplies, and the right, license, and privilege to use any and all of the patents, processes, methods, and designs which have been acquired by the United States (and which the United States has a right to transfer and assign the use of to any purchaser of nitrate plant No. 2), together with the sulphuric-acid units now in storage on the premises.

(b) All of the properties of the United States at nitrate plant No. 1, its steam-power plant, land, buildings, material, machinery, fixtures, equipment, apparatus, appurtenances, tools, supplies, and the right, license, and privilege to use any and all of the patents, processes, methods, and designs appertaining to said nitrate plant No. 1 which have been acquired by the United States; but nitrate plant No. 1 shall not be operated as an air nitrogen fixation plant as designed to be.

(c) All of the property at the quarry of the United States, known as the Waco quarry, including all material, buildings, quarry tracks, machinery, railroad tracks, tools, and other equipment.

(d) Also the steam plant, built and owned by the Government at Gorgas, Ala., on the Warrior River, including material, buildings, machinery, fixtures, apparatus, appurtenances, tools, supplies, and the transmission line from the Gorgas steam plant to nitrate plant No. 2, at Muscle Shoals; the United States to acquire title to the right-of-way lands necessary along the transmission line, and also to acquire the title to the land and site occupied by the steam plant and by all Government buildings and other structures at the Gorgas steam plant.

For the foregoing plants and other properties, as set forth and described above under *a, b, c, d*, the company offers to pay the United States five million dollars (\$5,000,000), the terms of payment to be agreed upon between the Secretary of War and the company, the Secretary of War having the authority to dispose of said plants and other properties as above enumerated.

11. At any time prior to the expiration of said lease period of one hundred (100) years, the company shall have the right to negotiate with the Government for a renewal of the leases for the two above dams, their power houses, etc. In the event of disagreement as to terms of the renewal, the United States and the company shall each appoint an arbitrator, and these arbitrators shall choose a third. The decision of the arbitration board of three shall be final and binding upon both parties.

12. If the United States agrees to sell, and the company purchases these several properties, nitrate plants, quarry, steam power plants, transmission lines, etc., and at prices and on terms mutually satisfactory, the company will operate nitrate plant No. 2 to approximate present capacity in the production of nitrogen and other fertilizer compounds, with the following special objectives:

(a) To determine by research on a commercial scale whether by means of electric furnace methods and industrial chemistry there may be produced fertilizer compounds of higher grade and at cheaper prices than the fertilizer-using farmers have in the past been able to procure, and to determine whether in a broad way the application of electricity and industrial chemistry may do for the agricultural industry of the country what they have economically accomplished for other industries.

(b) To maintain nitrate plant No. 2 in a state of readiness to be promptly operated in the manufacture of materials necessary in time of war for the production of explosives.

13. If the above offers of the company are accepted by the United States, and if the agreement between the Secretary of War and the company can be made for the purchase of the above-described properties, it will naturally and reasonably follow that the buyers of fertilizers will desire to be assured that fertilizers produced at nitrate plant No. 2 shall be sold at fair prices and without excessive profits.

14. To meet this reasonable expectation on the part of the farmers of the country who buy fertilizer, the company proposes that the maximum net profit which it shall make in the manufacture and sale of fertilizer products at nitrate plant No. 2 shall not exceed eight per cent (8 per cent). The company also

suggests that a board be created composed of officially designated members and representatives of farmers' national organizations, such as the American Farm Bureau Federation, the National Grange, and the Farmers' Union, together with a representative from the Bureau of Markets of the Agriculture Department (to be an ex officio member of this board, serving in an advisory capacity, without right to vote) and two representatives of the company. It is expected that the board should have access to the books and records of the company at any reasonable time and that its duty shall be to investigate costs and revenues and to determine for public information whether the profits of the company are being kept within the established limit of eight per cent (8 per cent), as above set forth; and it is also suggested that this board determine upon the territorial distribution of fertilizers produced at nitrate plant No. 2. If and when this board can not agree upon its findings and determinations, then the points of disagreement by the board, at any time, shall be referred to the Federal Trade Commission for arbitration and settlement, and the decision of the trade commission shall be final and binding upon the board.

15. Whenever, in the event of war, the United States shall require any part of the operating facilities of nitrate plant No. 2 for the production of materials necessary in the manufacture of explosives then the United States shall have the immediate right, upon notice to the company, to take over and operate the same for the national defense of the country, and the company will supply the United States with hydroelectric power necessary for such operations, together with the use of all patented processes which the United States may need in time of war for munition purposes and which the company owns and has the right to use, and any of the company's personnel and operating organizations required in times of war for operating any part of nitrate plant No. 2 in the manufacture of materials for explosives shall be at the disposal of the United States. All duly authorized agents and representatives of the United States shall have free access at all reasonable times during the lease period to inspect and study all of the operations, chemical processes, and methods employed by the company at nitrate plant No. 2, provided that such agents and representatives shall not use the information and the facts about any of the company's operations, except for the benefit and protection of the United States.

16. It will be obvious to you that, should the above proposals and offers of the company be accepted by the United States, there will be many details in the lease and purchase agreements to be worked out; but it is believed that the above will furnish all of the information required for decision by the United States upon the tender herein submitted.

17. The above proposals of the company are submitted as a whole and not in part.

18. The plans of the company with respect to its hydroelectric power needs are such that it is hoped that you, and those to whom you refer these proposals, will be able to arrive at prompt decisions regarding the company's offer, and that it can be confidently expected that the undersigned will very soon receive an answer to this communication.

Respectfully,

HENRY FORD.

EXHIBIT B.

DEARBORN, MICH., January 11, 1922.

Hon. J. W. WEEKS,
Secretary of War, Washington, D. C.

MY DEAR MR. SECRETARY: Referring to offer of July 8, 1921.

The company proposes to undertake the construction and completion, at actual cost, of all the work referred to; and when completed and ready for operation will pay the United States Government as annual rental of the property an amount equal to 4 per cent of the total cost of such construction.

Very truly, yours,

HENRY FORD.

EXHIBIT C.

PROPOSAL OF HENRY FORD FOR THE COMPLETION AND LEASING OF THE DAMS AND HYDROELECTRIC POWER PLANTS AT MUSCLE SHOALS AND FOR THE PURCHASE OF NITRATE PLANT NO. 1, NITRATE PLANT NO. 2, THE WACO QUARRY, AND THE GORGAS WARRIOR RIVER STEAM PLANT, ALL IN THE STATE OF ALABAMA.

Whereas the United States, through the Chief of Engineers, United States Army, invited the undersigned to submit an offer for the power to be developed at the Muscle Shoals Wilson Dam (hereinafter referred to as Dam No. 2); and

Whereas the undersigned did, under date of July 8, 1921, submit to the Chief of Engineers an offer for the consideration of the President, the Secretary of War, and Congress, which offer proposed a lease based upon the completion of Dam No. 2, and the construction of Dam No. 3 (as designated by the United States Engineers in House Doc. 1262, 64th Cong., 1st sess., and hereinafter referred to as Dam No. 3) and of their power houses, by the United States, and the payment by the undersigned of a fixed annual rental therefor, and proposed to purchase Nitrate Plant No. 1 at Sheffield, Ala.; nitrate plant No. 2 at Muscle Shoals, Ala.; Waco quarry, near Russellville, Ala.; and the Warrior steam plant at Gorgas, Ala., and all transmission lines connected with said plants; and

Whereas the undersigned, at the invitation of the Secretary of War, did, on January 11, 1922, submit a modification of his former proposal, based upon the construction and completion by a company to be formed by him, of all the work referred to in the offer of July 8, 1921, aforesaid, the actual cost of said work to be borne by the United States, and agreed on behalf of said company to pay four per cent (4 per cent) of the actual cost of completing said plants, structures, works, and improvements as annual rental for the lease thereof;

Now, therefore, in lieu of said offer of July 8, 1921, and in accordance with said modification of January 11, 1922, the undersigned hereby submits to the Secretary of War, and through him for appropriate action by the President and Congress, the following offer, which shall become a binding agreement upon approval of same by Congress:

1. For the purpose of carrying out the terms of this agreement, the undersigned will form a corporation (hereinafter referred to as the company), to be controlled by the undersigned, which company will immediately enter into and execute all necessary or appropriate instruments of contract to effectuate this agreement.

2. The company shall complete for the United States the construction work on Dam No. 2, its locks, power house, and all necessary equipment, all in accordance with the plans and specifications prepared or to be prepared or approved by the Chief of Engineers, United States Army, and progressively install the hydroelectric equipment in said power house adequate for generating approximately six hundred thousand (600,000) horsepower, all the work of aforesaid to be performed as speedily as possible at actual cost and without profit to the company, it being understood that the necessary lands and flowage rights, including lands for railway and terminal connections, have been or will be acquired by the United States.

3. The company will lease from the United States Dam No. 2, its power house and all of its hydroelectric and operating appurtenances, except the locks, together with all lands and buildings owned or to be acquired by the United States connected with or adjacent to either end of the said dam, for a period of one hundred (100) years from the date when structures and equipment of a capacity of one hundred thousand (100,000) horsepower are constructed and installed and ready for service, and will pay to the United States as annual rental therefor four per cent (4 per cent) of the actual cost of acquiring lands and flowage rights, and of completing the locks, dam, and power-house facilities (but not including expenditures and obligations incurred prior to approval of this proposal by Congress), payable annually at the end of each lease year, except that during and for the first six (6) years of the lease period the rentals shall be in the following amounts and payable at the following times, to wit: Two hundred thousand dollars (\$200,000) one (1) year from the date when one hundred thousand (100,000) horsepower is installed and ready for service, and thereafter two hundred thousand dollars (\$200,000) annually at the end of each year for five (5) years.

4. The company will further pay to the United States during the period of the lease of Dam No. 2 thirty-five thousand dollars (\$35,000) annually, in installments quarterly in advance, for repairs, maintenance, and operation of Dam No. 2, its gates and locks, it being understood that all necessary repairs, mainte-

nance, and operation thereof shall be under the direction, care, and responsibility of the United States during the said one hundred (100) year lease period; and the company, at its own expense, will make all necessary renewals and repairs incident to efficient maintenance of the power house, substructures, superstructures, machinery, and appliances appurtenant to said power house, and will maintain the same in efficient operating condition.

5. At all times during the period of the lease of Dam No. 2 the company will furnish to the United States, free of charge, to be delivered at any point on the lock grounds designated by the Chief of Engineers, United States Army, electric power to an amount necessary for the operation of the locks, but not in excess of two hundred (200) horsepower.

6. As soon as the release of suitable construction equipment and labor forces at Dam No. 2 will permit, or at an earlier date if desired by the company, the company shall construct and complete for the United States Dam No. 3, its lock, power house, and all necessary equipment, all in accordance with plans and specifications prepared and to be prepared by the Chief of Engineers, United States Army, or by the company, at its option, and approved by the Chief of Engineers, United States Army, and progressively install the hydroelectric equipment in said power house adequate for generating approximately two hundred fifty thousand (250,000) horsepower, all the work aforesaid to be performed as speedily as possible at actual cost and without profit to the company, it being understood that the necessary lands, flowage rights, and rights of way shall be acquired by the United States.

7. The company will lease from the United States Dam No. 3, its power house and all of its hydroelectric and operating appurtenances, except the lock, together with all lands and buildings owned or to be acquired by the United States connected with or adjacent to either end of the said dam, for a period of one hundred (100) years from the date when structures and equipment of a capacity of eighty thousand (80,000) horsepower are constructed and installed and ready for service, and will pay to the United States as annual rental therefor four per cent (4 per cent) of the actual cost of constructing the lock, dam, and power-house facilities, payable annually at the end of each lease year, except that during and for the first three (3) years of the lease period the rentals shall be in the following amounts and payable at the following times, to wit: One hundred sixty thousand dollars (\$160,000) one (1) year from the date when eighty thousand (80,000) horsepower is installed and ready for service, and thereafter one hundred sixty thousand dollars (\$160,000) annually at the end of each year for two (2) years.

8. The company will further pay to the United States during the period of the lease of Dam No. 3 twenty thousand dollars (\$20,000) annually, in installments, quarterly, in advance, for repairs, maintenance, and operation of Dam No. 3, its gates, and lock, it being understood that all necessary repairs, maintenance, and operation thereof shall be under the direction, care, and responsibility of the United States during the said one hundred (100) year period; and the company at its own expense will make all necessary renewals and repairs incident to the efficient maintenance of the power house, substructures, superstructures, machinery, and appliances appurtenant to said power house, and will maintain the same in efficient operating condition.

9. At all times during the period of the lease of Dam No. 3 the company will furnish to the United States, free of charge, to be delivered at any point on the lock grounds designated by the Chief of Engineers, United States Army, electric power necessary for the operation of the said lock, but not in excess of one hundred (100) horsepower.

10. For the purpose of enabling the Government to create and provide a sinking fund to retire the cost of Dam No. 3 at the end of one hundred (100) years, the company will at the beginning of the fourth (4th) year of the lease period, and semiannually thereafter for the remaining term of the lease, pay to the United States Government the sum of three thousand five hundred and five dollars (\$3,505); and for the purpose of enabling the Government to create and provide a sinking fund to retire the cost of Dam No. 2 at the end of one hundred (100) years the company will at the beginning of the seventh (7th) year of the lease period, and semiannually thereafter for the remaining term of the lease, pay to the United States Government the sum of nineteen thousand eight hundred and sixty-eight dollars (\$19,868).

11. The company agrees to purchase from the United States and the United States will sell the following properties, namely:

(a) All of the property constituting nitrate plant No. 2 (as officially known and designated), including lands, power plants, buildings, material, machinery, fix-

tures, equipment, apparatus, appurtenances, tools, and supplies, and the right, license, and privilege to use any and all of the patents, processes, methods, and designs which have been acquired and may be transferred or assigned to a purchaser of nitrate plant No. 2 by the United States, together with the sulphuric-acid units now in storage on the premises.

(b) All of the property constituting nitrate plant No. 1 (as officially known and designated), including lands, power plants, buildings, material, machinery, fixtures, equipment, apparatus, appurtenances, tools, and supplies, and the right, license, and privilege to use any and all of the patents, processes, methods, and designs which have been acquired and may be transferred to a purchaser of nitrate plant No. 1 by the United States, but the company shall not be obligated to operate nitrate plant No. 1 as an air nitrogen fixation plant.

(c) All of the property constituting the Waco quarry (as officially known and designated), including rights of way and buildings, material, quarry tracks, machinery, railroad tracks, appurtenances, tools, and supplies.

(d) All of the property constituting the steam power plant, built and owned by the Government at Gorgas, Ala., on the Warrior River, including lands, rights of way, buildings, machinery, material, fixtures, apparatus, appurtenances, tools, and supplies and the transmission line from the Gorgas steam plant to nitrate plant No. 2 at Muscle Shoals, and all other transmission lines belonging to the United States and connected with any of the aforesaid Government properties. The United States shall acquire all necessary easements or titles for right-of-way lands along all transmission lines, and convey same to the company, and the United States shall acquire the title to the land and site occupied by the said steam plant and by all Government buildings and other Government structures at the Gorgas plant, which will be conveyed to the company.

12. As the purchase price for the foregoing plants and properties to be conveyed to the company by the United States, the company will pay to the United States five million dollars (\$5,000,000) in five installments, as follows: One million dollars (\$1,000,000) upon the acceptance of this offer, and one million dollars (\$1,000,000) annually thereafter until the purchase price is fully paid, with interest at the rate of five per cent (5 per cent) per annum on deferred payments, with the privilege of anticipating any or all such payments, possession to be delivered upon payment of the first of said installments, and deeds of conveyance to be delivered when full payment for said property has been made.

13. This proposal contemplates and it is agreed that the purchase price for the property aforesaid shall not be diminished by reason of depreciation due to use or wear of buildings, machinery, and equipment or to the action of the elements, nor shall any claim be made for losses in or diminution of quantity of tools and supplies due to upkeep and maintenance during the period between the date hereof and the date of delivery of possession of said property; it being further understood that no inventory of the property need be taken, but that due care will be exercised by the United States in preserving and safeguarding the aforesaid real and personal property intact until possession thereof passes to the company. If any part or parts of the aforesaid plants necessary for proper operation of same have been removed by the United States, said part or parts shall be returned when possession of said plants passes to the company. Deeds of conveyance of real property shall warrant the title to be good and unencumbered.

14. The company agrees to operate nitrate plant No. 2 at the approximate present annual capacity of its machinery and equipment in the production of nitrogen and other fertilizer compounds (said capacity being equal to approximately 110,000 tons of ammonium nitrate per annum) throughout the lease period, except as it may be prevented by strikes, accidents, fires, or other causes beyond its control, and further agrees:

(a) To determine by research whether by means of electric-furnace methods and industrial chemistry there may be produced on a commercial scale fertilizer compounds of higher grade and at lower prices than fertilizer-using farmers have in the past been able to obtain, and to determine whether in a broad way the application of electricity and industrial chemistry may accomplish for the agricultural industry of the country what they have economically accomplished for other industries.

(b) To maintain nitrate plant No. 2 in its present state of readiness, or its equivalent, for immediate operation, in the manufacture of materials necessary in time of war for the production of explosives.

15. In order that the farmers may be supplied with fertilizers at fair prices and without excessive profits, the company agrees that the maximum net profit

which it shall make in the manufacture and sale of fertilizer products at nitrate plant No. 2 shall not exceed eight per cent (8 per cent) of the actual annual cost of production thereof. In order that this provision may be carried out the company agrees to the creation of a board of not more than nine (9) voting members, chosen as follows: The three (3) leading representative farm organizations national in fact, namely: The American Farm Bureau Federation, The National Grange, The Farmers Educational and Cooperative Union of America (or their successors), shall each designate not more than seven (7) candidates for said board. The President shall nominate for membership on this board not more than seven (7) of these candidates, selected to give representation to each of the above-mentioned organizations, said nominations to be made subject to confirmation by the Senate; and there shall be two voting members of said board selected by the company. A representative of the Bureau of Markets, Department of Agriculture (or its legal successor), to be appointed by the President, shall also be a member of the board, serving in an advisory capacity without the right to vote. The said board shall determine what has been the cost of manufacture and sale of fertilizer products and the price which has been charged therefor, and, if necessary for the purpose of limiting the annual profit to eight per cent (8 per cent) as aforesaid, shall regulate the price at which said fertilizer may be sold by the company. For these purposes, said board shall have access to the books and records of the company at any reasonable time. The said board shall also determine the equitable territorial distribution of fertilizer products produced at nitrate plant No. 2. If and when said board can not agree upon its findings and determinations, then the points of disagreement shall be referred to the Federal Trade Commission (or its legal successor) for arbitration and settlement, and the decision of said commission in such cases shall be final and binding upon the board.

16. Whenever, in the national defense, the United States shall require all or any part of the operating facilities at nitrate plant No. 2 for the production of materials necessary in the manufacture of explosives or other war materials, then the United States shall have the immediate right, upon five days' notice to the company, to take over and operate the same, and the company will supply the United States with hydroelectric power necessary for such operations, together with the use of all patented processes which the United States may need which the company owns or has the right to use. When required for national defense any of the company's personnel and operating organization necessary for operating any part of nitrate plant No. 2 in the manufacture of materials for explosives, or other war materials, shall be at the disposal of the United States. For the facilities and services aforesaid the United States shall protect the company from losses occasioned by such use and shall return the said property in as good condition as when received and reasonably compensate the company for the use thereof. All duly authorized agents and representatives of the United States shall have free access at all reasonable times to inspect and study all of the operations, chemical processes, and methods, employed by the company at nitrate plant No. 2, provided that such agents and representatives shall not use the information and the facts concerning any of the company's operations except for the benefit and protection of the United States.

17. In order that said company may be supplied with electric power and the farmers with fertilizers after the termination of the said one-hundred-year leases, should the United States elect not to operate said power plants but determine to lease or dispose of same, the company shall have the preferred right to negotiate with the United States for such lease or purchase and upon such terms as may then be agreed upon. If the said leases are not renewed or the property covered thereby is not sold to said company, its successors, or assigns, any operation or disposal thereof shall not deprive the company, its successors or assigns, of the right to be supplied with electric power at reasonable rates and in amount equal to its needs, but not in excess of the average amount used by it annually during the previous 10 years.

18. As a method of procedure in the event of the violation of any of the terms of this proposal or any contracts made in furtherance of its terms, the company agrees that the Attorney General may upon the request of the Secretary of War institute proceedings in equity in the District Court of the United States for the Northern District of Alabama for the purpose of canceling and terminating the lease of Dam No. 2 or Dam No. 3, or both of them, because of such violation or for the purpose of remedying or correcting by injunction, mandamus, or other process any act of commission or omission in violation of the terms of this proposal or any contract made in furtherance thereof.

19. The above proposals are submitted for acceptance as a whole and not in part. Upon acceptance, the promises, undertakings, and obligations shall be binding upon the United States, and jointly and severally upon the undersigned, his heirs, representatives, and assigns, and the company, its successors and assigns; and all the necessary contracts, leases, deeds, and other instruments necessary or appropriate to effectuate the purposes of this proposal shall be duly executed and delivered by the respective parties above mentioned.

Approved and signed by me at Dearborn, Michigan, this twenty-fifth day of January, 1922.

HENRY FORD.

Witness:

W. B. MAYO.

EXHIBIT D.

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ORDNANCE,
January 28, 1922.

Memorandum of the Secretary of War:

Subject: Analysis of the Ford offer for the Muscle Shoals projects, in so far as it pertains to the interests of the Ordnance Department.

1. In compliance with your instructions of the 26th instant, the Ordnance Department has made a hurried analysis of the paper entitled, "Proposal of Henry Ford for the completion and leasing of the dams and hydroelectric power plants at Muscle Shoals and for the purchase of nitrate plant No. 1, nitrate plant No. 2, the Waco quarry, and the Gorgas Warrior River steam plant, all in the State of Alabama," supplied by the Judge Advocate General's Department, in so far as it pertains to the interests of the Ordnance Department, and submits the following comments:

NITROGEN PREPAREDNESS.

The main objective of the Ordnance Department in the matter of nitrogen compounds is to make the United States able to be self-sustaining in their supply in time of need. It believes that such ability can only be achieved through the fixation of atmospheric nitrogen by one or more processes, and it further believes that the most economical and enduring method of developing nitrogen fixation is its establishment on a commercial basis.

At the present time there are two methods of nitrogen fixation which seem to be the most adaptable to American conditions, namely, the synthetic ammonia or Haber process and the cyanamid process. The first is the process of United States nitrate plant No. 1, and the second is the process of United States nitrate plant No. 2.

The Ford offer states as follows in the matter of operating and maintaining the nitrate plants:

United States Nitrate Plant No. 1—Article 11(b).—" * * * the company shall not be obligated to operate nitrate plant No. 1 as an air nitrogen fixation plant."

United States Nitrate Plant No. 2—Article 14.—"The company agrees to operate nitrate plant No. 2 at the approximate present capacity of its machinery and equipment, in the production of nitrogen and other fertilizer compounds throughout the lease period, except as it may be prevented by strikes, accidents, fires, or other causes beyond its control, and further agrees:

"(a) To determine by research whether by means of electric-furnace methods and industrial chemistry there may be produced on a commercial scale fertilizer compounds of higher grade and at lower prices than fertilizer-using farmers have in the past been able to obtain, and to determine whether in a broad way the application of electricity and industrial chemistry may accomplish for the agricultural industry of the country what they have economically accomplished for other industries.

"(b) To maintain nitrate plant No. 2 in its present state of readiness or its equivalent, for immediate operation, in the manufacture of materials necessary in time of war for the production of explosives."

Article 16 provides for the taking over and operation of the No. 2 plant by the Government whenever such action is necessary in the national defense and provides that at all reasonable times all duly authorized agents and representatives

of the United States shall have free access to inspect and study the operations of the plant.

The process installed at the No. 1 plant, which has not been thoroughly worked out there, has been developed and placed in commercial operation on a limited scale by the Atmospheric Nitrogen Corporation in their Syracuse plant. The objective of the Ordnance Department with reference to this process has, therefore, been achieved and it is not necessary from the standpoint of nitrogen preparedness that the No. 1 plant be perfected and operated.

If the Ford offer means, in the case of the No. 2 plant, that such plant will be operated at its approximate present capacity for the fixation of nitrogen, it is most satisfactory from the standpoint of nitrogen preparedness, for it guarantees the establishment of the nitrogen fixation business on a large, long-enduring, and commercial basis. In other words, it completes the objective which the Ordnance Department believes essential for the making of the United States able to be self-sustaining in its supply of nitrogen compounds.

ORDNANCE-CONTROLLED PROPERTY TO BE TRANSFERRED.

Article 11 outlines the ordnance-controlled property which is to be transferred under the offer and includes (a) nitrate plant No. 2, (b) nitrate plant No. 1, (c) Waco quarry, (d) Gorgas power plant on Warrior River and transmission line from Gorgas plant to plant 2.

Item (d) requires the United States to acquire title to the lands on which the power plant and transmission line are located.

In respect to (a) it is desired to point out that the Ordnance Department now has a contract (T-66) with the American Cyanamid Co. which contains the following clause:

"Article XIX. Sale of plant: If upon cessation of this war or for any other reason the United States determines to cease the construction, equipment, or operation of any of the said plants and to dispose of the same, the agent shall be given the first opportunity (for a reasonable period of time not to exceed six months after receipt of written notice stating the determination of the United States to dispose of the same, and the material terms upon which such disposition will be made) to purchase the same upon as favorable terms as the United States is willing to accept therefor before the United States shall sell the same to any other party."

It is believed that due consideration should be taken of this right of the American Cyanamid Co.

In respect to (b) the offer is believed to be satisfactory.

In respect to (c) the offer is believed to be satisfactory.

In respect to (d) it should be noted that the Ordnance Department now has a contract (T-69) with the Alabama Power Co. which provides definitely for the sale of these properties to that company. The provisions of the contract covering such sale are not quoted on account of length. It is believed that our contractual obligations require us to meet both the spirit and letter of this contract unless the Alabama Power Co. is willing to surrender or sell its rights.

PURCHASE PRICE OF PLANTS.

Article 12 of the offer states that—

"As the purchase price for the foregoing plants and properties to be conveyed to the company by the United States the company will pay to the United States five million dollars (\$5,000,000) * * *."

If this is considered to be only a part of the consideration to be paid, it is not entirely fair to match it up against the estimated salvage value of the properties to be transferred. However, the following summary of estimated salvage values is submitted. No offers have been received to substantiate these figures, although the steam plant at nitrate plant No. 2 is now leased on the basis of \$6,000,000 valuation.

Estimated salvage value of ordnance property in the State of Alabama.

	Approximate cost.	Salvage value.		
		As operating concern.	As scrap.	As operating concern and scrap.
United States nitrate plant No. 1, 1,900 acres of land.....	\$12,888,000	(1)	\$600,000	\$600,000
United States nitrate plant No. 2, 2,300 acres of land, including the Muscle Shoals substation (surplus materials at plant 2, costing \$1,500,000 and having salvage value of \$900,000, are included in plant 2).....	69,674,000	(2)	7,250,000	³ 11,640,000
Warrior generating plant.....	3,337,000	\$3,000,000	800,000	3,000,000
Warrior substation.....	384,000			
Drifton railroad.....	50,000			
Warrior-Muscle Shoals transmission line.....	905,000	675,000	60,000	675,000
Waco quarry, 400 acres of land.....	1,179,000	357,000	102,000	357,000
Total.....	88,417,000	10,032,000	8,812,000	16,272,000

¹ None, with possible exception of the power plant.

² None, unless the Wilson Dam is completed with exception of 60,000 kilowatt steam-electric power plant which has value of possibly \$6,000,000. The value of United States nitrate plant No. 2 as an operating concern depends mainly upon the price which must be paid for power for its operation. If power is to cost \$0.004 per k. w. h. the plant has practically no earning power and therefore has no value. If power is to cost \$0.004 per k. w. h. the plant has an earning capacity and corresponding value.

³ Basis of steam plant as operating concern and balance of plant as scrap.

⁴ 75 per cent of cost.

In this connection it should be noted also that before the United States can turn over to Mr. Ford all of the properties that he desires that some sort of an arrangement will have to be concluded between the United States and the American Cyanamid Co. which may require a money consideration, and arrangements will also have to be concluded between the United States and the Alabama Power Co., which will undoubtedly require a substantial money consideration.

SUMMARY.

The Ford offer from the standpoint of the Ordnance Department has the very important advantage of materially assisting in the development of nitrogen preparedness and has the disadvantages of conflicting with contractual obligations with the American Cyanamid Co. and the Alabama Power Co. and of making a net return to the Government of less than \$5,000,000 for properties which have an estimated salvage value of some \$16,000,000.

The difference, \$11,000,000, appears, therefore, to be the price which the United States is paying for nitrogen preparedness. If the plant is diverted to any purposes which do not include nitrogen fixation, this asset is lost to the Government.

C. C. WILLIAMS,
Major General, Chief of Ordnance, United States Army.

EXHIBIT E.

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, January 30, 1922.

Memorandum for the Secretary of War.

Subject: Analysis of Mr. Ford's offer for Muscle Shoals power plants.

The following analysis of Mr. Ford's offer for the Muscle Shoals power plant is submitted for your information:

Under the terms of the offer, as concerns hydroelectric plants at Muscle Shoals:

The United States is to furnish the funds for the completion of Dam No. 2, and for the construction of Dam No. 3, including power generating machinery and structures, and is to operate and maintain the dams and locks.

A company to be formed by Mr. Ford is to have a 100-year lease of the power plants, beginning with the dates on which certain specified amounts of power are available at each.

In consideration of this lease the company is to pay: (a) \$200,000 per annum for the first six years that the power plant at No. 2 is in operation; \$100,000 per annum for the first three years that the power plant at No. 3 is in operation, and respectively thereafter a sum equal to 4 per cent of the net capital cost to the United States of the dams and power plants, exclusive of the amounts heretofore expended and exclusive also of the cost of acquiring flowage rights for Dam No. 3.

(b) Specified annual sums to cover the cost of operating and maintaining the dams.

(c) Specified annual amounts designed to produce the sum of \$48,000,000 at the end of the lease period.

In addition the company agrees to maintain the nitrate plant in good condition for use in a war emergency and to produce nitrates at a reasonable profit. As a minor consideration it is to furnish the United States without charge a limited but sufficient amount of power for the operation of the locks at the dams.

The major item of the consideration for the lease is the payment, after specified periods, of 4 per cent on the net capital expenditures to be hereafter made by the Government in furtherance of the agreement. A determination of the adequacy of this return depends upon the future rates of interest that the Federal Government will have to pay on its loans. Considering that the Government is now paying somewhat less than 5 per cent on short-term loans, it is believed reasonable to assume that when the specified full rental begins to run, some 10 years hence, the interest rates paid by the United States will not substantially exceed 4 per cent and may be less.

The payments specified for the operation and maintenance of the dams are considered adequate to meet all ordinary operation and maintenance costs.

The annual payments specified to create an amortization or sinking fund of \$48,000,000 at the termination of the lease are relatively small in amount. The sum eventually produced, with the value of the dams on the termination of the lease, should be amply sufficient to reimburse the United States for the initial capital charge, and the eventual payment of the costs, hereafter computed, of carrying the expenditures in the interval before the full payments begin.

The payments proposed do not cover a return during the period of the lease of the costs to the United States of carrying and expenditures during construction and during the early rental periods in which the full rental at 4 per cent is not to be paid, nor does it include a return on the cost of acquiring flowage rights for Dam No. 3. An estimate of the amount in question depends upon the cost of the two dams.

The engineer department's estimate made in July, 1921, for completing Dam No. 2 with its full power equipment is in round numbers \$28,000,000; and in August, 1921, for constructing Dam No. 3, \$28,000,000.

The estimate of Mr. Ford's engineers for completing Dam No. 2 is in round numbers \$23,230,000; for Dam No. 3, \$19,000,000.

Construction of Dam No. 2 has so far advanced that foundation conditions are thoroughly established and the work required can be predicted with certainty, leaving as the only uncertainty the cost of executing the work. The condition does not exist at Dam No. 3, where the foundation work necessary will not be certainly determined until the bed of the river is laid bare. The engineer department's estimates are regarded as adequate to meet any reasonable eventuality of construction at the costs current when the estimates were prepared.

Subsequent to the preparation of the engineer department's estimates the prices of material and labor have generally declined, and it is believed that a reduction of about 10 per cent in the prior estimates is now justifiable. The cost of completing the two dams with power equipment for purposes of this analysis is therefore taken at \$25,000,000 each, in round numbers, or \$50,000,000 in all.

The time of completion of Dam No. 2 has been placed at 40 months, of No. 3 at 36 months. Considering, however, the fact that the hydroelectric machinery for the first 100,000 horsepower of No. 2 is already under contract, and that the first units can be put in operation prior to the eventual completion of the entire installation, it is considered that, for purposes of analysis, the time before payments begin to accrue may be placed at three years for each dam.

Interest during the preliminary period is taken at 5 per cent.

On these assumptions the carrying charges become as follows:

Dam No. 2:

Funds required for completion----- \$25, 000, 000

Interest during construction, one-half of three years, at 5 per cent----- 1, 875, 000

Interest for first six years subsequent----- \$7, 500, 000

Less six payments of \$200,000----- 1, 200, 000

Net deficiency----- 6, 300, 000

Total accrued interest before full payments begin----- 8, 175, 000

Dam No. 3:

Funds required for completion----- 25, 000, 000

Interest during construction, one-half of three years, at 5 per cent----- 1, 875, 000

Interest for first three years subsequent----- \$3, 750, 000

Less three payments of \$160,000----- 480, 000

Net deficiency----- 3, 270, 000

Total accrued interest before full payments begin----- 5, 145, 000

The gross cost of carrying the expenditures during the preliminary periods will therefore be \$13,320,000. Such carrying charges are not customarily considered in Government work but are here included in order that the analysis may be complete. The cost of the flowage rights for Dam No. 3 is estimated at \$2,331,000, giving a total of \$15,651,000.

The interest charges on this sum at 4 per cent will amount to \$626,040 per annum during the life of the lease, subsequent to the preliminary period. During the preliminary period these charges will increase from about \$100,000, on the completion of Dam No. 2, to the ultimate figure stated. The exact amount of this annual charge will depend upon the actual costs of the dams and the periods required for construction, but it can scarcely be less than \$500,000 per annum and it should not exceed \$650,000 per annum.

Indirect benefits accruing to the United States are:

(a) The maintenance of a nitrate plant in readiness for a war emergency.
(b) The production, in the interest of the public welfare, of large amounts of fertilizer at a cost not exceeding the reasonable cost of production, providing that the production of nitrates adapted to fertilizing purposes is found to be practicable.

(c) The elimination of the cost of maintaining and operating the present imperfect facilities for navigation at Muscle Shoals, amounting to from \$35,000 to \$85,000 per annum.

(d) The advantage to interstate commerce and navigation of the far superior facilities to navigation that will be secured through the construction of the dams and locks.

The funds that have been expended on Dam No. 2 have not been included in the analysis, for the reason that neither the acceptance nor the rejection of Mr. Ford's offer would restore any substantial portion of them to the Public Treasury. If Dam No. 2 be not completed, either by Mr. Ford's company, the United States, or otherwise, the work done will be wholly without value within a brief period of years, and the only recovery possible from the investment already made will be the scrap value of such machinery as can be disposed of, too small in amount to affect the present analysis.

LANSING H. BEACH,
Major General, Chief of Engineers.

EXHIBIT F.

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ORDNANCE,
Washington, November 18, 1921.

From: Chief of Ordnance.

To: Secretary of War.

Subject: Cost of United States nitrate plants Nos. 1 and 2 and Warrior-Sheffield power station and transmission line.

1. In accordance with your verbal request, there is attached hereto a summary of the costs of the plants enumerated above.

C. C. WILLIAMS,
Major General, Chief of Ordnance, U. S. Army.

Cost statement of United States nitrate plants Nos. 1 and 2 and Warrior-Sheffield power station and transmission line.

[Submitted by G. B. Attersall, chief Accounts Branch, Nitrate Division, O. O., Nov. 1, 1921.]

UNITED STATES NITRATE PLANT No. 1.

Chemical plant.....		\$7, 134, 785. 00
Oxidation plant.....	\$1, 706, 976. 63	
Soda-recovery plant.....	6, 258. 10	
Process plant.....	4, 216, 854. 85	
Neutralization plant.....	109, 978. 56	
Coal and coke storage.....	35, 651. 76	
Gas plant.....	551, 591. 18	
Concentration plant.....	289, 083. 20	
Ammonium nitrate plant.....	218, 390. 72	
Shops.....		314, 076. 00
Machine shop.....	97, 624. 51	
Storehouse.....	140, 686. 72	
Oil house.....	2, 492. 81	
Warehouses.....	73, 271. 96	
Power house.....		1, 271, 665. 23
Land.....		615, 127. 20
Village.....		2, 526, 276. 28
Permanent village.....	1, 597, 978. 26	
Temporary village.....	928, 298. 02	
Public works.....		1, 026, 011. 60
Roads and walks.....	36, 663. 00	
Sewer system.....	212, 297. 33	
Water system.....	496, 323. 81	
Railways.....	179, 438. 58	
Electric distribution system.....	101, 288. 88	
Total.....		12, 887, 941. 31
Operations: Sheffield operation and maintenance to July 1, 1920.....		794, 359. 85
Grand total.....		13, 682, 301. 16
Maintenance to July 1, 1921.....		75, 506. 42

UNITED STATES NITRATE PLANT No. 2.

Chemical plant.....		\$35,984,090. 55
Raw material and storage group.....	\$2, 809, 361. 53	
Carbide group.....	5, 768, 305. 82	
Cyanamid group.....	4, 987, 045. 31	
Liquid air group.....	4, 005, 503. 09	
Ammonia gas group.....	3, 710, 872. 79	
Nitric acid group.....	12, 627, 103. 80	
Ammonium nitrate group.....	1, 236, 075. 39	
Process steam plant.....	559, 577. 74	
Laboratory.....	280, 245. 08	

Shops -----	\$2,696,481.30
Engine terminal and machine shops-----	937,049.35
Blacksmith shop-----	187,284.30
Woodworking shop-----	168,202.88
Warehouse-----	567,662.53
Switch house-----	495,772.14
Foundry-----	90,650.64
Gate building-----	249,859.46
Power house-----	12,326,392.23
Land-----	237,711.00
Village -----	3,121,193.31
Ice plant-----	\$166,312.32
Permanent dwellings-----	1,984,120.64
Temporary dwellings-----	(1)
Hospital-----	142,877.97
First quarters hotel-----	586,924.89
Soldiers' barracks-----	240,957.49
Public works -----	8,843,007.62
Roads and walks-----	583,201.94
Sewer system-----	1,132,606.80
Water system-----	2,265,452.59
Railways-----	2,025,478.13
Trolley lines-----	173,393.99
Fencing-----	107,641.25
Telephone system-----	22,555.46
Electrical distribution system-----	2,532,677.46
Inventories (approximately one-half of these inventories have been disposed of) -----	3,043,516.20
Waco Quarry -----	1,302,962.88
Construction-----	1,250,000.00
Land-----	52,962.88
Total -----	67,555,355.09
Operations -----	3,424,496.85
Rockwood quarry-----	986,858.85
Muscle Shoals-----	1,840,568.32
Ordnance maintenance to July 1, 1920-----	597,069.68
Grand total -----	70,979,851.94
Maintenance to July 1, 1921 -----	201,674.63
WARRIOR-SHEFFIELD POWER STATION AND TRANSMISSION LINE.	
Warrior generating plant-----	\$3,417,702.70
Warrior substation-----	383,756.35
Transmission line-----	938,057.35
Muscle Shoals substation ² -----	189,843.99
Drifton Railroad-----	50,421.94
Total -----	4,979,782.33
Maintenance to July 1, 1920 -----	25,804.57
Maintenance to July 1, 1921 -----	7,056.82

EXHIBIT G.

WAR DEPARTMENT,
OFFICE OF THE JUDGE ADVOCATE GENERAL,
Washington, January 28, 1922.

Memorandum for the Secretary of War.

Subject: Legal questions involved in Henry Ford's Muscle Shoals proposal.

Instead of discussing at length the legal points involved in Henry Ford's Muscle Shoals proposal, you will observe that this subject has all been covered

¹ Temporary buildings, the cost of which was \$5,174,377.19, have been allocated to the cost of the permanent plant as overhead.

² Located on Government-owned land at Muscle Shoals, Ala.

in one short paragraph in the draft submitted. I am transmitting herewith, however, a copy of my notes covering this subject, originally intended for your consideration as a part of your contemplated report to Congress, which you may find helpful or available for your use if needed.

JOHN A. SMITH, Major, Judge Advocate.

NOTES.

Shortly after receipt by me of the offer of Henry Ford for the leasing of the dams and proposed power plant at Muscle Shoals and disposition of the power to be developed at that place, my attention was invited to certain provisions contained in the contract with the Air Nitrates Corporation, dated June 8, 1918, under which nitrate plant No. 2 was constructed, granting to said company an option to purchase same under certain conditions; also the provisions of an agreement entered into with the General Chemical Co. for the use of its patents and processes in the construction and operation of nitrate plant No. 1, which placed certain limitations and restrictions upon the use of said patents and processes and enjoined secrecy on the part of the Government as long as the Government shall continue to use said processes; also to certain provisions in the contract for the construction of the Gorgas Warrior River steam plant and transmission line constructed by the Alabama Power Co. at the expense of the United States on land owned by said company, but with a provision in the contract authorizing the operation of Gorgas Warrior station under certain conditions and the sale of electricity resulting from said operation upon the payment to the United States of 1½ mills for each kilowatt-hour of energy produced, with an option to the Alabama Power Co. to purchase plant at any time subsequent to three years after the termination of the war at a value to be fixed by arbitration; and more important still, the question was raised as to my authority, in view of the provisions of the national defense act, to sell or make any other disposition of these properties, under existing laws. Accordingly these questions as they arose were, from time to time, submitted to the Judge Advocate General for opinion.

I was advised by the Acting Judge Advocate General that the only existing authority for the leasing of public property such as that contemplated herein is that granted in the act of Congress approved July 28, 1892 (27 Stat., 321), which provides for the leasing by the Secretary of War of property of the United States under his control, which may not for the time being be required for public use, for a period not to exceed five years and revocable at any time, and that the only authority for the sale of Government property that might possibly be applicable, in the absence of specific restrictions, is the general authority contained in the act of Congress, approved July 9, 1918 (40 Stat., 850), authorizing the President, through the head of any executive department, to sell war supplies, material, and equipment—

“and any building, plant, or factory acquired since April 6, 1917, including the lands upon which the plant or factory may be situated, for the production of such war supplies, materials, and equipment * * *.”

With reference to my authority to sell or lease the Muscle Shoals nitrate plants, or any property acquired by the United States under the authority of section 124 of the national defense act of June 3, 1916, the Acting Judge Advocate General invited my special attention to the following provision in said act:

“The plant or plants provided for under this act shall be constructed and operated solely by the Government and not in conjunction with any other industry or enterprise carried on by private capital.” (39 Stat. 215.)

In the same opinion the Acting Judge Advocate General said:

“It is understood by this office that Muscle Shoals was selected by authority of the President as a site for the nitrate plant authorized by the national defense act, and that plant No. 1 and the Wilson Dam and certain other facilities have been paid for in part from the \$20,000,000 appropriated by the national defense act. It appears that about \$16,000,000 has been expended from that appropriation, chiefly, however, for the construction of the Wilson Dam. It is understood that the land for the nitrate plant No. 1 was paid for from that appropriation but the construction of plant No. 1 and all expenses in connection with No. 2 were paid for from war appropriations for the Ordnance Department.

“It thus appears that the Muscle Shoals nitrate project, considered as a whole, was initiated by Congress by the provisions of the national defense act of June 3, 1916, and that a considerable portion of the expenditures for the plant have been made from the \$20,000,000 appropriated by that act.

"In my opinion the general authority contained in the act of July 9, 1918, supra, for the sale of war supplies and plants acquired since April 6, 1917, does not apply to the Muscle Shoals project, considered as a whole. It is a rule of statutory construction that a general statute does not repeal or supersede a prior particular statute unless there is some express reference to the previous legislation on the subject, or unless there is a necessary inconsistency in the two acts standing together. * * * I consider, therefore, that the provision contained in section 124 of the national defense act directing that the plant therein authorized be operated solely by the Government and not in conjunction with any other industry or enterprise carried on by private capital is applicable to this plant as a whole and is a restraint upon its sale. The same statute would prevent the lease or rental of the plant for private operation."

Acting upon the advice of the Acting Judge Advocate General, I have taken the position that I have no authority to act finally upon the Ford offer or any other offer submitted for the Muscle Shoals project as a whole, the disposition thereof, in any event, being subject to the will of Congress. It is because of such fact that I submit this proposal to Congress for appropriate action.

With reference to the option to purchase, contained in the contract for the construction of the power plant by the Alabama Power Co., covering the Gorgas Warrior steam plant and transmission lines, which contract was dated and executed December 1, 1917, the Acting Judge Advocate General has advised me that at that time there was no authority under existing law for the sale of such property, and therefore the Secretary of War, or contracting officer representing the United States, was without authority to enter into a contract for the sale of said property or for granting an option for the purchase thereof, and as the Constitution vests in Congress the sole power to dispose of and make all needful rules and regulations respecting the property of the United States, and Congress not having vested that authority in the Secretary of War or anyone else, it was beyond the power of the Secretary of War or contracting officer to bind the hands of Congress in the matter of determining to whom or upon what terms said property might be sold or otherwise disposed of. Attention is also invited to the date of the contract with the Air Nitrates Corporation for the construction of nitrate plant No. 2, which was executed on June 8, 1918. And as there was at that time no authority for the sale of said plant, the same situation exists with reference to the option granted to the Air Nitrates Corporation purporting to give to said corporation an option for a period not to exceed six months after the date of notice stating the determination of the United States to dispose of the same. This provision is nugatory and void and is not binding upon the United States.

With reference to nitrate plant No. 1, which was constructed upon plans of the General Chemical Co. and contained provisions for the use of patents and processes of said company and provided for secrecy in the use thereof, it appears that the General Chemical Co. has treated said contract as at an end and construed the same as binding only so long as the Government shall continue to use said processes. In a letter received from the General Chemical Co. under date of September 13, 1919, replying to a request for certain information from the General Chemical Co., appears the following:

"If, as we understand, your request for information was made pursuant to clause 4 of our tender of June 5, 1917, we need only remind you that by the express terms of this clause our obligation to communicate improvement to the Government was limited to the period during which the Government should continue the use of our process, and that the Government's plant for the use of that process has been shut down for nearly a year."

In reply to an inquiry as to whether or not the equipment used in the synthetic process at nitrate plant No. 1 could be sold or removed from the reservation, without restriction as to its use, the Acting Judge Advocate General said:

"The subject matter of the contract was processes and apparatus, and the machinery installed is not shown to fall within those classes, and no restrictions being set forth as to its use, may be sold without restriction or reservation as to its use, and the future use of the plant by the purchaser as a plant for manufacturing the subject matter embodied in any patents would, of course, be a question between the purchaser and any patentee owning processes to be used.

"Inasmuch as processes covered by the contract are no longer in operation or use by the Government, the prohibition relating to the exclusion of the public is no longer applicable and the equipment, not being the subject matter of the contract, may be sold for whatever purposes the Government may see fit."

With reference to the question as to whether or not the United States may transfer the right, license, and privilege to use any or all patents, processes,

methods, and designs which have been acquired by the United States under the license agreement with the American Cyanamid Co., my attention has been invited to the fact that said agreement provides that the United States may transfer to the purchaser of said plant the right to avail itself of the license granted in the operation of the plant so purchased, subject, of course, to the conditions of use granted to the United States, but that it is extremely doubtful that the term "purchaser" as used in the contract could be construed to include a "lessee" of said plant.

With reference to the present use of the Gorgas Warrior steam plant by the Alabama Power Co. under the provisions of the contract for the construction thereof I am advised by the Acting Judge Advocate General that the only authority for such use at the time the contract was entered into was the authority contained in the general leasing act of July 28, 1892, which provided that any use permitted under the authority thereof shall be revocable at any time, and hence the use by the Alabama Power Co. must be construed as subject to termination at any time by the Secretary of War.

With reference to the use of the transmission line and power plant at nitrate plant No. 2, covered by the lease to the Alabama Power Co., dated November 17, 1921, attention is invited to the fact that this lease was executed under the authority of the said act of July 28, 1892, and is, by its terms, revocable at any time.

It is believed that the construction placed upon these contract provisions and upon the lease above mentioned by the law officers of the Army is correct and would be sustained in the event these questions should later arise. In any event Congress may, if it sees fit, ignore them.

STUDY OF OFFER OF HENRY FORD FOR LEASE OF MUSCLE SHOALS PLANT.

1. The study is prepared on the basis of the cash outlay on the part of the United States involved in the proposal, against which is set up the cash receipts and the saving under the proposal of otherwise necessary expenditures. For the purposes of this computation the assumption has been made that the expenditures might otherwise have been, and the receipts and savings might be, applied to sinking funds. These amounts have accordingly been computed annually, except in the case of payments to the United States under section 10, which, under the terms of that section, are to be computed semiannually. An annual rate of interest of 4 per cent has been taken in all cases.

2. The following is an analysis of the proposal and the manner of its application to the accompanying computation.

Paragraph 1: Introductory.

Paragraph 2 requires the Government to advance the funds necessary for the completion of Dam No. 2. The Engineer Department estimate of the cost of such completion is \$25,000,000, the rate of expenditure being assumed to be uniform for the three years required to complete. (See p. 20 of hearings.) Mr. Ford's estimate for this work is \$23,230,000. For the purposes of this computation the engineer estimate has been used. It has been assumed that the contract will begin January 1, 1923, and the expenditures during the calendar year 1923 have been taken at \$8,000,000, during 1924 at \$8,000,000, and during 1925 at \$9,000,000. It is understood that the expenditures to date on Dam No. 2 have been about \$17,000,000. No account is taken of these expenditures for the reason as stated by the Chief of Engineers that "neither the acceptance nor the rejection of Mr. Ford's offer would restore any substantial portion of them to the Public Treasury." (Hearings, p. 21; see column 2, Statement A.)

Paragraph 3: It is assumed that the 100,000 horsepower plant will be ready for service at the close of the construction period, that is, by January 1, 1926, the annual rental of \$200,000 will accordingly be received for the six years ending December 31, 1931, and beginning with January 1, 1932, the annual rental will be on the basis of 4 per cent of the actual cost, which cost has been assumed at \$25,000,000, thus making this rental \$1,000,000 up to December 31, 1925. (See columns 2, 3, and 4, Statement B.)

Paragraph 4: This provides for payment of a specific amount annually by Mr. Ford to cover cost of maintenance and operation of locks, and also provides in general terms for the payment of costs of maintenance of electric plant by Mr. Ford. It is understood that the amount proposed fairly approximates the probable cost. As income and outgo balance under this paragraph, no computation is made thereon.

Paragraph 5: No computation is necessary under this paragraph.

Paragraph 6: This paragraph relates to Dam No. 3, and is similar in its provisions to paragraph 2. The cost of the construction of Dam No. 3 is estimated by the Engineer Department at \$25,000,000, and by Mr. Ford at \$19,000,000. The Engineer Department estimate has been used in this computation. In addition to the cost of construction, the Engineer Department estimates that the cost of flowage rights will be \$2,331,000. This is a necessary item of expense and has been included in the computation, though under Mr. Ford's computation he makes no return on account of this expenditure. (See columns 3 and 4, Statement A.)

Paragraph 7: This provides for an annual rental of \$160,000 for the first three years of operation at Dam No. 3. It has been assumed that the construction of Dam No. 3 will begin upon the completion of Dam No. 2 and will occupy three years, and that the operation of the plant will accordingly begin January 1, 1929. For the remaining 97 years of the lease the lessee is to pay annually 4 per cent of the actual cost which is assumed at \$1,000,000 per year. (See columns 5, 6, and 7, Statement B.)

Paragraph 8: Not considered in this computation. See remarks above on paragraph 4.

Paragraph 9: Not considered in this computation.

Paragraph 10: The terms of this paragraph are quite specific and require the payment of certain sums semiannually for the establishment of sinking funds for each of the two dams, interest to be computed semiannually at 4 per cent per annum; the first payments to these sinking funds would be made on June 30, 1932. (See columns 5, 6, and 7, Statement B.)

Paragraphs 11 and 12 relate to the purchase of the various ordnance plants and the quarry. As this is a purchase outright of property and is separable in this respect from the other portions of the contract, the payments to be made are not included in the computation. The Chief of Ordnance states that this property is worth \$11,000,000 more than the \$5,000,000 proposed to be paid for it. (Hearings, p. 19.)

Paragraphs 13 to 19: These paragraphs contain general provisions not considered in this computation.

Saving on maintaining navigation facilities.—The Chief of Engineers states that the completion of the proposed dams will eliminate the cost of maintaining and operating the present facilities for navigation at Muscle Shoals, the annual cost of which is now from \$35,000 to \$85,000. This saving has been included in the computation, the annual saving being assumed at \$60,000, and the saving has been assumed to begin on January 1, 1930.

3. The accompanying statement shows the theoretical accumulation of the respective amounts of outgo and income on certain specified dates up to and including December 31, 2025, the assumed date for the completion of the lease of Dam No. 2. It will be noted that under the conditions of the proposal, the lease of Dam No. 3 will expire at some date later than the expiration of the lease of Dam No. 2. Upon the assumptions taken in this computation, the lease of Dam No. 3 would expire December 31, 2028.

OFFICE OF THE CHIEF OF FINANCE,
May 8, 1922.

STATEMENT A.—Comparison of outgo and income under proposal of Henry Ford for lease of Muscle Shoals.

Date.	Outgo.				Income. ¹
	Dam No. 2— Construction.	Dam No. 3.		Total.	
		Construction.	Flowage rights.		
1	2	3	4	5 (2+3+4)	6
Dec. 31—					
1923.....	\$8, 160, 000			\$8, 160, 000	
1924.....	16, 646, 400			16, 646, 400	
1925.....	26, 492, 256			26, 492, 256	
1926.....	27, 551, 946	\$8, 160, 000	\$2, 331, 000	38, 042, 946	\$200, 000
1927.....	28, 654, 024	16, 646, 400	2, 424, 240	47, 724, 664	408, 000
1928.....	29, 800, 185	26, 492, 256	2, 521, 210	58, 813, 651	624, 320
1929.....	30, 992, 192	27, 551, 946	2, 622, 059	61, 166, 197	1, 009, 292
1930.....	32, 231, 880	28, 654, 024	2, 726, 941	63, 612, 845	1, 472, 064
1931.....	33, 521, 155	29, 800, 185	2, 836, 019	66, 157, 359	1, 953, 346
1932.....	34, 862, 001	30, 992, 192	2, 949, 460	68, 803, 653	2, 442, 038
1933.....	36, 256, 481	32, 231, 880	3, 067, 438	71, 555, 799	2, 938, 296
1934.....	37, 703, 740	33, 521, 155	3, 190, 136	74, 415, 031	3, 442, 624
1935.....	39, 215, 010	34, 862, 001	3, 317, 741	77, 395, 552	3, 956, 552
1940.....	47, 710, 550	42, 414, 505	4, 036, 496	94, 161, 551	5, 216, 618
1950.....	70, 622, 587	62, 783, 223	5, 974, 942	139, 380, 752	8, 522, 240
1960.....	104, 537, 672	92, 933, 610	8, 844, 288	206, 315, 570	11, 834, 023
1970.....	154, 739, 798	137, 563, 118	13, 091, 580	305, 394, 496	19, 041, 256
1980.....	229, 050, 491	203, 625, 054	19, 378, 549	452, 054, 094	27, 234, 751
1990.....	339, 047, 408	301, 411, 914	28, 684, 710	669, 144, 032	49, 221, 550
2000.....	501, 868, 145	446, 158, 957	42, 459, 968	990, 487, 070	754, 011, 881
2010.....	742, 880, 284	660, 417, 873	62, 850, 518	1, 466, 148, 675	1, 141, 559, 517
2020.....	1, 099, 633, 683	977, 570, 348	93, 033, 222	2, 170, 237, 253	1, 715, 275, 209
2025.....	1, 337, 858, 324	1, 189, 351, 188	113, 187, 939	2, 640, 397, 451	2, 098, 417, 203

¹ For details see Statement B.

STATEMENT B.—Details of income.

Date.	Dam No. 2.			Dam No. 3.			Sinking funds.			Saving on cost of maintaining navigation.	Total.
	Rental for first 6 years.	Rental at 4 per cent of cost.	Total.	Rental for first 3 years.	Rental at 4 per cent of cost.	Total.	Dam No. 2.	Dam No. 3.	Total.		
1	2	3	4 (2+3)	5	6	7 (5+6)	8	9	10 (8+9)	11	12 (4+7+10+11)
December 31—											
1923.....											
1924.....											
1925.....											
1926.....	\$200,000		\$200,000								\$200,000
1927.....	408,000		408,000								408,000
1928.....	624,320		624,320								624,320
1929.....	849,292		849,292	\$160,000		\$160,000					1,009,292
1930.....	1,083,264		1,083,264	326,400		326,400				\$62,400	1,472,064
1931.....	1,326,594		1,326,594	499,456		499,456				127,296	1,953,346
1932.....	1,379,658	\$1,000,000	2,379,658	519,434	\$1,000,000	1,519,434	\$40,936	\$7,222	\$48,158	194,788	4,142,038
1933.....	1,434,844	2,040,000	3,474,844	540,212	2,040,000	2,580,212	83,526	14,735	98,261	264,979	6,418,296
1934.....	1,492,238	3,121,600	4,613,838	561,820	3,121,600	3,683,420	127,836	22,552	150,388	337,978	8,785,624
1935.....	1,551,928	4,246,460	5,798,388	584,293	4,246,460	4,830,753	173,936	30,685	204,621	413,897	11,247,659
1940.....	1,888,138	10,582,790	12,470,928	710,874	10,582,790	11,293,664	433,928	76,551	510,479	841,547	25,116,618
1950.....	2,794,879	27,671,210	30,466,089	1,052,257	27,671,210	28,723,467	1,137,190	200,617	1,337,807	1,994,877	62,522,240
1960.....	4,137,064	52,966,260	57,103,324	1,557,582	52,966,260	54,523,842	2,182,200	384,971	2,567,171	3,639,686	117,834,023
1970.....	6,123,806	89,040,560	95,164,366	2,305,580	89,040,560	91,346,140	3,735,030	658,913	4,393,943	6,136,807	197,041,256
1980.....	9,064,641	143,807,870	152,872,511	3,412,789	143,807,870	147,220,659	6,042,453	1,065,975	7,108,428	9,833,153	317,034,751
1990.....	13,417,754	223,707,010	237,124,764	5,051,713	223,707,010	228,758,723	9,445,965	1,666,404	11,112,369	15,225,694	492,221,550
2000.....	19,861,362	343,147,120	363,008,482	7,477,697	343,147,120	350,624,817	14,528,602	2,563,054	17,091,656	23,286,926	754,011,881
2010.....	29,399,384	519,947,670	549,347,054	11,068,711	519,947,670	531,016,381	22,081,133	3,895,428	25,976,561	35,219,521	1,141,559,517
2020.....	43,517,850	781,655,690	825,173,540	16,384,238	781,655,690	798,039,928	33,303,797	5,875,267	39,179,064	52,882,677	1,715,275,209
2025.....	52,945,557	956,419,990	1,009,365,547	19,933,719	956,419,990	976,353,709	40,819,043	7,201,064	48,020,107	64,677,840	2,098,417,203

WAR DEPARTMENT,
Washington, May 25, 1922.

HON. JULIUS KAHN,
*Chairman Military Affairs Committee,
House of Representatives, Washington, D. C.*

MY DEAR MR. KAHN: I inclose herewith a copy of the opinion of the Attorney General passing on the validity of certain features of two contracts entered into by the Government, one with the Alabama Power Co. dated December 1, 1917, and the other with the Air Nitrates Corporation, dated June 8, 1918, both relating to Muscle Shoals.

It was necessary to divide the work of copying the original opinion among several stenographers, which accounts for the lack of uniformity in its appearance.

Sincerely yours,

JOHN W. WEEKS, *Secretary of War.*

DEPARTMENT OF JUSTICE,
Washington, May 24, 1922.

SIR: I have the honor to acknowledge the receipt of your favor of April 27, 1922, requesting my opinion as to the validity of certain features of two contracts entered into by the Government, one with the Alabama Power Co., dated December 1, 1917, and the other with the Air Nitrates Corporation, dated June 8, 1918. The inquiries you make may in substance be stated as follows:

1. Is that part (Art. XXII) of the contract with the Alabama Power Co. binding on the Government which gives that company, at any time after December 1, 1926, or such earlier period as the United States shall finally cease to take power, the right to demand that the value of the Warrior extension and the Warrior substation shall be determined by three arbitrators, and which obligates the Government to sell to that company at the figure thus to be determined?

2. Is that part (Art. XIX) of the contract with the Air Nitrates Corporation binding on the Government which gives that company, if the United States determines to sell, the prior right to purchase the nitrate plants embraced therein, upon as favorable terms as the United States is willing to sell to another?"

It will possibly be conducive to a clearer understanding of the situation if I take up these contracts separately.

THE ALABAMA POWER CO. CONTRACT.

No one can carefully analyze the long and rather complex contract made with this company without being impressed with the harsh and even drastic provisions which it imposes on the Government. When its intricate provisions are closely scrutinized and their full significance realized, it becomes at once apparent that the company lost no opportunity of turning to its own advantage every possible change of circumstances. But however burdensome the agreement may be, the Government on its part must faithfully observe the obligations it assumed if they were in fact authorized by proper statutory power. I feel persuaded, however, that the option to purchase which the contract contains was unauthorized. But before I proceed to state my reasons, I must call attention to what the agreement really contains.

It is difficult to present in a few words even a brief synopsis of the contract with this company. Broadly speaking, the Government is to provide the necessary funds for the erection of an additional unit (styled Warrior extension) to the company's existing power station on the Warrior River, as well as for the erection of a substation at that place. The company, which already owned a 20-mile transmission right of way, is to acquire at its own expense an extension as far as Muscle Shoals, 88 miles from the Warrior plant, and with money to be furnished by the Government, is to build an extension of its transmission line over this right of way. The Government acquires no title to the land upon which either the transmission line or the Warrior extension or the Warrior substation is to be built. All of these structures are to be treated as personal property, the Government merely obtaining the right to keep them on the company's ground during the life of the contract, at the end of which time they must be removed.

It is obvious that in this contingency they become mere junk. For this privilege, if such it may be termed, and for the use of the water power and other facilities mentioned in the recitals, the Government is to pay \$60,000. When the plant is ready for effective operation the Government obligates itself to pay for electrical energy furnished at the rate of 6½ cents per kilowatt-hour, with a

guaranteed minimum payment of \$30,000 a month. The company on its part obligates itself to pay as monthly rental a sum at the rate of 6 per cent per annum of the actual cost of these facilities. Payments on both sides, however, are to stop on a 60-day notice from the Government to cease furnishing power, to be started again when the furnishing of power is resumed.

The option to purchase is based on a number of contingencies; but the outstanding feature is that the Government may, after a designated time, compel the company to buy the Warrior extension and the Warrior substation at a value to be determined by arbitration, with payments to be spread over a period of seven and one-half years. On the other hand, the company at any time after December 1, 1926, or earlier if the United States finally ceases to take power, may demand that the value be determined by three arbitrators. Although the United States is obligated to sell, the company, if dissatisfied with the valuation, is apparently under no obligation to buy. If it does not itself buy, the United States is given the right to sell to another. But the purchaser will gain no privilege of operating the property. On the contrary, he must remove everything within six months. This is only one striking illustration of many others that might be enumerated showing how one-sided the contract really is. The United States, it is true, is given the right during the life of the contract (10 years), to sell to a purchaser or lessee of the nitrate plants the right to demand from the company electrical energy; but upon the happening of this event the contract (Art. XXIII) expressly provides that certain designated articles therein shall not apply, among them the one (Art. XVII) dealing with the cost at which electrical energy is to be furnished.

With respect to the transmission line, no option to buy is given to the company. The United States, however, if it ceases to take energy for two years, and in any event at the end of 10, must remove the same upon six months' notice; but on the receipt of such a notice it may require the company to purchase at a value to be fixed by arbitration. The contract is thus susceptible of the interpretation that the company may defeat any effort on the part of the Government to compel a purchase by refusing to give the notice just mentioned.

With these observations I now proceed to make answer to your inquiry: The act of May 10, 1918 (40 Stat. 548), authorizes the President, during the emergency then existing, to sell upon such terms as he deems expedient, through the head of any executive department, any supplies, materials, equipment or other property acquired by the Government in connection with the prosecution of the war. The act of July 9, 1918 (40 Stat. 850), is of broader scope, although it embraces in substance the provision of the act just mentioned. It, too, authorizes the President, through the head of any executive department, to sell, upon such terms as he shall deem expedient, any war supplies, materials, equipment or by-products, any building, plant, or factory for their production, including lands, acquired at any time during the emergency. The power to give the Alabama Power Co. the option already mentioned must exist, if it exists at all, by virtue of these statutes; for the contract was not in fact signed and delivered until November, 1918, although dated prior to the passage of these statutes. The option that was given is, in my opinion, invalid for these reasons:

1. I do not think the power that is thus given to sell Government property is broad enough to give the designated officials the power to grant an option to buy. I do not mean by this to intimate that there must be a present transfer of title and a present payment of the consideration. On the contrary I think the power to sell is broad enough to make an agreement whereby the vendee is given the right to pay the purchase price in installments. But there must be at least some obligation to pay on the vendee's part. An option is in no proper sense either a sale or a contract to sell. On the contrary, its effect is to deprive the Government temporarily of the power of sale, leaving it entirely to the uncontrolled discretion of the vendee to determine whether during the life of the option he will call upon the Government to part with its title. In short, an option is not an exertion of the power of sale but a covenant that this power will not be exercised except in favor of the vendee, and then only if the vendee so elects. (27 Rul. Cas. Law, 334; *Ide v. Leiser*, 24 Pac. (Mont.) 695; *Barnes v. Rea* (No. 2), 219 Pa. St. 287.)

In *Tibbs v. Zirkle* (46 S. E. (W. Va.) 701) it was held that a power to sell land did not include the power to option. Says the court:

"We can not hold otherwise than that Zirkle exceeded his authority under his power of attorney in executing plaintiff's option, for he was only authorized to make sale, while an option is not a sale, although it may eventuate in a sale. For

the time being it prevents a sale, it matters not what the event thereof maybe; and if Zirkle had authority to give an option for three months, he had the right to extend such option for three years, and in this manner he might indefinitely tie up the property and prevent, instead of securing, a sale thereof."

To the same effect: *Swift v. Erwin*, 148 S. W. (Ark.) 267; *Ives v. Davenport*, 3 Hill (N. Y.) 373; *Field v. Small*, 17 Colo. 386; *Trogden v. Williams*, 144 N. C. 192; *Wynkoop v. Shoemaker*, 37 App. (D. C.) 258.

Moreover, there is not even an obligation on the part of the power company to pay the Government the price the arbitrators may determine. Paragraph (4) of Article XXII gives that company at any time after December 1, 1926, or such earlier period as the United States shall finally cease to take energy, the right to have the valuation determined by arbitration. But when the value is thus determined there is apparently no obligation on the company's part to buy. It may decline to purchase if the value is, in its opinion, too high. The Government is powerless to force a sale at the price thus fixed. Its only measure of consolation, meager enough at the best, is to remove its property and sell it as junk, for paragraph (5) provides that "in the event that the contractor shall on demand of the United States fail or refuse to purchase the Warrior extension and Warrior substation under any of the foregoing subdivisions of this article, the United States may sell the same to another, subject to the conditions that said properties shall not be operated and that they shall be removed within six months after the sale has been consummated."

2. I am also of the opinion that under the statutes I have mentioned, the officials therein designated, who are given the discretionary power to fix the terms of sale, are unable to delegate this power to arbitrators. If the price at which Government property is sold is to be determined, not by the officials authorized to make the sale, but by arbitrators to be chosen in the manner this contract provides, it is plain that there is an absolute surrender of what is probably the most important power of all. If the determination of the purchase price is to be left to arbitrators, it is hard to say where the limit must stop. For if that power can be delegated, I see no reason why the power to determine when and upon what terms the purchase price is to be paid, may not be equally delegated. I accordingly conclude that the provision in the contract which leaves the price to be determined by arbitrators is without legislative sanction.

Welch, assignee of McCormick, *v. United States* (1 Ct. Cl. (O. S.) 39), was a suit upon an award. The Navy Department had sent a sawmill to Commodore Jones, who entered into an agreement with Parker for its erection, the contract containing a stipulation that on the happening of a certain contingency the question of damages should be left to the determination of referees. In holding the award was not binding on the United States, the court said:

"We consider the law to be, that such an agent of the Government as the commodore was can not, without being specially authorized to do so, bind the Government by a submission of matters in dispute to arbitration. It follows, that the part of the contract of the 7th of April, 1849, with Parker, which provides for a submission to arbitration is void for the want of authority in the commodore to make it, and, of course, the award must be likewise void."

See also *United States v. Ames*, 24 Fed. Cas. 784 (No. 14441). (Cf. *Great Falls Mfg. Co. v. United States*, 112 U. S. 645; *Brannen v. United States*, 20 Ct. Cl. 219.)

3. My conviction that neither the act of May 10, 1918, nor the act of July 9, 1918, authorizes an option like this or a sale for a price to be fixed by arbitration is strengthened by the course administratively taken after its passage. August 31, 1918, an order was issued, reciting the statute and directing the War Department bureaus, after first securing approval of the Director of Purchase, Storage and Traffic, to sell, unless otherwise directed by him, "for cash at auction, or to the highest bidder on sealed proposals, on due public notice, and in such market as the public interests may require." Later, by order of January 17, 1919, practically identical instructions were issued, the only material change being the direction that sales might be approved by a subordinate called the Director of Sales instead of the Director of Purchase, Storage and Traffic himself.

My attention has not been called to any administrative action or order taken under this statute which, at the date this contract was signed or at any other time, authorized the officers executing or otherwise participating in it to disregard these directions or to assume that this option agreement was authorized by the statute.

Before I leave this subject I must express my inability to agree with the argument advanced in other quarters that the agreement offends section 124 of the national defense act, approved June 3, 1916 (39 Stat. 215). That section author-

izes the President to make an investigation to determine the best means for the production of nitrates and munition products; to designate sites for such production; to construct and maintain power houses for the generation of power and plants for the production of nitrates and munition products; to acquire the necessary lands and rights of way; to use the products for military and naval purposes; to dispose of the surplus; and appropriates \$20,000,000 for the purposes named. It is specifically provided that the plants shall be constructed and operated solely by the Government and not in conjunction with any other industry or enterprise carried on by private capital.

The argument has accordingly been made that, inasmuch as the contract purports to be dated December 1, 1917, it must speak as of that date, and inasmuch as no legislation was in existence at that time authorizing the construction of nitrate plants other than the act just mentioned, the contract with the Alabama Power Co., which was designed to secure electrical energy for the operation of these plants, offends the act of June 3, 1916, it being asserted that the Warrior extension, the Warrior substation, and the 88-mile transmission line from this substation at Gorgas to Muscle Shoals, all of which were built with Government funds advanced under the contract, were to be operated by the power company as an integral part of that company's system.

But this argument fails to command my assent. In the first place, the nitrate plants were built not under the \$20,000,000 appropriation above mentioned but under entirely different appropriations made to meet the war emergency, the contract not being in fact signed and delivered until November, 1918. And in the second place, the facilities just mentioned were brought into existence merely to furnish electrical energy, so that the plants might be operated. In no just sense, therefore, can it be said that the furnishing of electrical power to run these plants was an operation prohibited by the national defense act.

THE AIR NITRATES CORPORATION CONTRACT.

The contract with this company provides in substance that it shall erect and operate certain nitrate plants at Muscle Shoals. The agreement contains a recital which, to say the least, is disingenuous. I refer to that part which says that the American Cyanamid Co. (which owned outright the Air Nitrates Corporation) is "unwilling to subject its property and assets to liability in connection with the planning, construction, and operation of the proposed plants, and has accordingly organized the Air Nitrates Corporation * * * which shall act as the agent for and which shall be solely responsible to the United States and others in the planning, construction, and operation of the proposed plants * * *." The truth is that under the contract the Air Nitrates Corporation assumes no financial liability whatever. All expenses, whatever their nature may be, are to be borne by the Government. For its services in building the plants with Government funds the company is to receive 3½ per cent of the cost up to \$30,000,000 and 1¼ per cent beyond that, with a maximum limit of \$1,500,000. For its services in operating the plants when built, the entire expenses of which are also to be paid from Government funds, the company is to receive one-fourth of 1 cent for every pound of ammonium nitrate produced in each year up to 110,000 tons (\$550,000), and one-half of this amount for every pound in excess of this tonnage. Even if the Chief of Ordnance should decide, as he might under the contract, that public interests require the United States to take over the operation of the plant, the agreement obligates the Government to keep on paying the company these sums until June 1, 1921. One indulgence is, however, granted the United States—payments are to stop when they reach \$550,000 in any fiscal year.

To add to the burdens thus assumed, the Government on the same day entered into a separate contract with the American Cyanamid Co., the parent organization. In consideration of that company granting to the United States the right to use certain patented processes and placing its experiments, studies, plans, designs, and technical staff at the disposal of its subsidiary company, the Air Nitrates Corporation, the Government obligated itself to pay as royalty to the parent company 6 mills for every pound of nitrogen produced in any fiscal year up to 91,700,000 pounds (\$550,200), and 3 mills for each pound in excess of that.

The sum total thus expended by the Government in the construction of the nitrate plant under this contract with the Air Nitrates Corporation appears to be \$67,550,355.09. The option to purchase (Art. XIX) upon which your inquiry is founded reads.

"If upon cessation of this war or for any other reason the United States determines to cease the construction, equipment, or operation of any of the said plants and to dispose of the same, the agent shall be given the first opportunity

(for a reasonable period of time, not to exceed six months after receipt of written notice, stating the determination of the United States to dispose of the same, and the material terms upon which such disposition will be made) to purchase the same upon as favorable terms as the United States is willing to accept therefor, before the United States shall sell the same to any other party."

I am of the opinion that this provision, too, is invalid. The authority to enter into such a stipulation must be derived, if at all, from the act of May 10, 1918, already mentioned. I think that the authority to sell Government property conferred by this act is not broad enough to give the designated officials the power to obligate the Government to give this company the preferential right to purchase which the contract attempts to confer. As already pointed out, such a right is neither a sale nor a contract to sell. It is but a mere privilege, to be exercised or declined by the company after six months of deliberation. I need not stop to repeat the reasons I gave in reaching a similar conclusion when considering the other contract; although of course one of them—that dealing with the fixing of the purchase price by arbitration—is inapplicable here.

But this opinion is, I think, void on an entirely different ground. It will be noted that the preferential right of purchase is attended by no limit of time.

This is an endeavor to create a present right to a future interest, unrestricted in duration and so uncertain and remote as to render it, under well-established principles, invalid and unenforceable. (*Barton v. Thaw*, 246 P. St. 348; *London & Southwestern Ry. Co. v. Gomm*, 51 L. J. Ch. 530, 20 Ch. Div. 562; *Worthing Corporation v. Heather*, 75 L. J. Ch. 761; *Manchester Ship Canal Co. v. Manchester Racecourse Co.*, 2 Chancery (1900) 352, on appeal, 2 Chancery (1901) 37.)

To both of the inquiries appearing at the beginning of this opinion my answer accordingly is no.

Respectfully,

H. M. DAUGHERTY, *Attorney General*.

The SECRETARY OF WAR.

SITUATION OF GOVERNMENT AT MUSCLE SHOALS.

The position in which the Government finds itself in attempting to deal with the disposition of Muscle Shoals was well stated by the chairman of the Appropriations Committee in his statement before our committee. As Mr. Madden pointed out, the Government has never established a policy at Muscle Shoals beyond the determination to complete the Wilson Dam, the work on which is now in progress and nearing completion. After reviewing the extended efforts of the Government to dispose of the nitrate plants to private interests under the former administration, Mr. Madden summed up the expenditures of the Government at Muscle Shoals and his figures brought down to June 30, 1923, total more than \$125,000,000; and if this enterprise is to be carried on by the Government Mr. Madden then showed that an additional \$59,000,000 would be necessary.

Having in mind the great sum of money expended by the Government on this project, realizing that the great nitrate plants with the millions of dollars invested in machinery, tools, and appurtenances connected with the project naturally are deteriorating while standing idle, and realizing also that Dam No. 2, known as the Wilson Dam, with a total investment of \$50,000,000, is rapidly nearing completion under the efficient direction of Army engineers, it requires but little reflection to convince the most conservative man that surely this situation should be given that prompt and earnest consideration necessary to bring about a wise and permanent solution of the entire problem.

THREE POSSIBLE COURSES.

How can the problem be solved; what can Congress do; what should be done?

In answer, it may be said that there are three possible courses whereby a definite and final conclusion of this matter may be reached.

First. Congress can authorize the necessary appropriations for the completion of the dam or dams and other facilities necessary to enable the operation of the plant or plants in accordance with the provisions of section 124 of the national defense act. This means Government ownership and operation.

Second. Congress can authorize the necessary appropriations to complete the project, retaining the title and amending the law in such manner as to enable the leasing of the power developed and the plants already constructed to private persons or corporations. This means Government ownership but not operation.

Third. Congress can make the appropriations necessary for the completion of Dam No. 2 and the construction of Dam No. 3 (including the purchase of flowage rights at Dam No. 3), authorize the sale of all the plants and property of every description in any way connected with the project to an individual or corporation on conditions prescribed by Congress, and authorize the leasing of the power developed from the dams for a specified period and on terms prescribed by Congress. This means private ownership and operation, freeing the Government from any further expense for operation or maintenance.

It is proper to say at this point that a majority of the Committee on Military Affairs is opposed to the Government operation of this project, and, as heretofore stated in this report, after most painstaking investigation and analysis, concluded that the proposal submitted by Henry Ford approached more nearly the fulfillment of the intent of Congress as expressed in the national defense act, eliminating Government operation of the plants. Accordingly, we present the same for the consideration of the House in H. R. 518.

POLICY FOLLOWED IN CONSIDERING OFFERS.

In considering the disposition of the Muscle Shoals project the policy expressed by Congress in section 124 of the national defense act of June 3, 1916, provided that the dam and plants constructed under authority of that section of the law should be maintained for the purposes of supplying nitrates for explosives in time of war and fertilizer in time of peace. Therefore, in judging these several offers the committee has been guided by the following considerations:

First. Satisfactory responsibility behind a straightforward comprehensive offer for both the power and the nitrate plants.

Second. Satisfactory fertilizer production and a provision for the maintenance of nitrate plant No. 2 ready for immediate production of military explosives, in accordance with the policy of the Government in providing the nitrate plants as indicated in section 124 of the national defense act.

Third. Satisfactory assurance that the benefits of economical production of fertilizers, which all agree can be had at Muscle Shoals, will be passed on to the consumer.

Fourth. Reasonable financial returns to the Government.

Fifth. Satisfactory length of the lease period.

Sixth. Satisfactory conditions during and at the end of the lease period.

When these features of the several offers are considered the offer of Mr. Ford as modified at the request of the Committee on Military Affairs in the Sixty-seventh Congress is clearly the best proposal.

SUMMARY OF FORD PROPOSAL.

It is pertinent to inquire, What is the Henry Ford proposal, and what are some of the reasons upon which the committee base the recommendation for the acceptance of the same by Congress?

Mr. Ford asks the Government, acting through Congress, to advance the money to complete Dam No. 2 and to build Dam No. 3. The cost of Dam No. 2 at the time the Ford offer was made was estimated by the United States engineers at \$25,000,000, and their estimated cost of Dam No. 3 was \$25,000,000.

He further asks that the Government shall purchase the necessary flowage rights at both the dams, the cost of which is estimated at \$1,500,000; also that the Government convey to him by conditional deed nitrate plant No. 1, which cost \$12,887,941.31, and nitrate plant No. 2, including the Waco quarry, which cost \$67,555,355.09; also all the land connected with these plants, being 4,666 acres; also all the interest of the United States Government in the Gorgas Warrior steam plant, situated on the Warrior River, 88 miles distant from Muscle Shoals, on which the Government expended \$4,979,782.33.

Mr. Ford further proposes that the Government, through the Secretary of War, lease to him Dams No. 2 and No. 3, together with all their appurtenances, for a lease period of 100 years. He also proposes that at the end of the lease period the company shall have the preferred right to negotiate with the United States Government for such lease or purchase of the property and upon such terms as may be then prescribed by Congress.

In consideration of the foregoing, Mr. Ford agrees:

First. That he is to form a corporation with capital stock of \$10,000,000 or more, of which at least \$10,000,000 shall be paid in in cash.

Second. The company shall complete for the United States, subject to the approval of the Chief of Engineers of the United States Army, Dam No. 2, its locks, power house, and all necessary equipment, all in accordance with the plans and specifications prepared or to be prepared or approved by the Chief of Engineers of the United States Army, and progressively install hydroelectric equipment in said power house adequate for generating approximately 600,000 horsepower, all work aforesaid to be performed as speedily as possible at actual cost, without profit to the company.

Third. He further proposes that as soon as the release of suitable construction equipment and labor forces at Dam No. 2 will permit, or at an earlier date, if desired by the company, the company shall construct and complete, subject to the approval of the Chief of Engineers of the United States Army, for the United States, Dam No. 3, its lock, power house, and all necessary equipment, all in accordance with the plans and specifications prepared and to be prepared by the Chief of Engineers of the United States Army, or by the company, at its option, and approved by the Chief of Engineers of the United States Army, and progressively install the hydroelectric equipment in said power house adequate for generating approximately 250,000 horsepower, all the work aforesaid to be per-

formed as speedily as possible at actual cost and without profit to the company.

He further proposes that the company will lease from the United States Dam No. 2, its power house and all the hydroelectric and operating appurtenances, except the locks, together with all lands and buildings owned or to be acquired by the United States connected with or adjacent to either end of said dam, for a period of 100 years from the date when structures and equipment of a capacity of 100,000 horsepower are constructed and installed and ready for service; and will pay to the United States as annual rental therefor 4 per cent of the actual cost of acquiring lands and flowage rights and of building the locks, dam, and power-house facilities, payable annually at the end of each lease year, except that during and for the first six years of the lease period the rental shall be in the following amounts and payable at the following times: \$200,000 one year from the date when 100,000 horsepower is installed ready for service, and thereafter \$200,000 at the end of each year for five years.

Fourth. Also, the company will lease from the United States Dam No. 3, its power houses, and all of the hydroelectric and operating appurtenances, except the lock, together with all lands and buildings owned or to be acquired by the United States, connected with or adjacent to the end of the said dam, for a period equal to the lease term of Dam No. 2 and its hydroelectric power equipment thereat, and that the said lease terms of the two dams and the hydroelectric thereat shall expire at the same time, the said period to begin at the date when said structures and equipment of a capacity of 80,000 horsepower are constructed and installed and ready for service, and will pay to the United States as annual rental therefor 4 per cent of the actual cost of acquiring the lands and flowage rights and of constructing the lock, dam, and power-house facilities, payable annually at the end of each lease year, except that during and for the first three years of the lease period the rentals shall be for the following amounts and payable at the following times, to wit: \$160,000 one year from the date when 80,000 horsepower is installed and ready for service, and thereafter \$160,000 annually at the end of each year for two years.

Fifth. He further agrees that the company will pay to the United States during the period of the lease of Dams No. 2 and No. 3, \$20,000 annually in installments quarterly in advance for repairs, maintenance, and operation of Dam No. 3, its gates and lock, and \$35,000 annually in installments quarterly in advance for repairs, maintenance, and operation of Dam No. 2, its gates and locks, it being understood that all necessary repairs, maintenance, and operation thereof shall be under the direction, care, and responsibility of the United States during the said 100 years lease period. The company, at its own expense, will make all necessary renewals and repairs incident to the efficient maintenance of the power houses, substructures, superstructures, machinery, and appliances appurtenant to said power houses, and will maintain the same in efficient operating condition.

Sixth. He further proposes that at all times during the period of the lease of Dam No. 2 the company will furnish to the United States free of charge, to be delivered at any point on the lock grounds indicated by the Chief of Engineers of the United States Army,

electrical power to an amount necessary for the operation of the locks, but not in excess of 200 horsepower, and shall also furnish power for the same purpose at Dam No. 3, but not in excess of 100 horsepower.

Seventh. He further proposes to provide a sinking fund covering the lease period, which at the end of the same will amortize the cost to the Government of the cost of completing Dam No. 2, the construction of Dam No. 3, and the cost of the flowage rights in connection therewith.

Eighth. He further proposes to pay to the Government for the conveyance to him or the company of all the property constituting nitrate plant No. 2, including lands, power plant, buildings, materials, machinery, fixtures, equipment, apparatus, appurtenances, tools, and supplies, and the right, license, and privilege to use any and all of the patent processes, methods, and designs which have been acquired and may be transferred or assigned to a purchaser of nitrate plant No. 2 by the United States, together with the sulphuric-acid units now in storage on the premises; also all of the property constituting nitrate plant No. 1, including power plant, buildings, materials, machinery, fixtures, equipment, apparatus, appurtenances, tools, and supplies, and the right, license, and privilege to use any and all of the patent processes, methods, and designs which have been acquired and may be transferred to a purchaser of nitrate plant No. 1 by the United States; also all of the property constituting the Waco quarry, including the rights of way and buildings, material, quarry tract, machinery, railroad tracks, appurtenances, tools, and supplies; also all of the property constituting the steam power plant built and now owned by the Government at Gorgas, Ala., on the Warrior River, including lands, rights of way, buildings, machinery, material, apparatus, appurtenances, tools, and supplies, and the transmission line from the Gorgas steam plant to nitrate plant No. 2 at Muscle Shoals, and all other transmission lines belonging to the United States and connected with any of the aforesaid Government properties, the sum of \$5,000,000 in five installments, as follows: \$1,000,000 upon the acceptance of this offer, and \$1,000,000 annually thereafter until the purchase is fully paid, with interest at the rate of 5 per cent per annum on deferred payments with the privilege of anticipating any or all of the payments, possession to be delivered upon the payment of the first of said installments and deeds of conveyance to be delivered when full payment for such property has been made.

It is further provided that each of said deeds shall refer to or contain the provisions of the offer, and said deeds shall be so drawn as to make these provisions covenants running with the land.

Ninth. The proposal further provides that the company shall maintain nitrate plant No. 2 in its present state of readiness or its equivalent, for immediate operation in the manufacture of material necessary in time of war for the production of explosives, during the entire lease period, and it is further provided that whenever, in the national defense, the United States shall require all or any part of the operating facilities of nitrate plant No. 2 for the production of any material necessary in the manufacture of explosives, or other war materials, then the United States shall have the immediate right upon five days' notice to the company, to take over and operate the same, and the company will supply the United States with the hydroelectric power necessary for such operation, together with such com-

plete patented processes which the company owns or has the right to use; and further, when required for national defense, any of the company's personnel and operating organization necessary for operating any part of nitrate plant No. 2 in the manufacture of materials for explosives or other war materials shall be at the disposal of the United States, to be reasonably compensated for such use by the Government.

Tenth. It is also proposed that the company shall be obligated during the lease period to manufacture nitrogen and other commercial fertilizers, mixed or unmixed, with or without filler, according to demand, at nitrate plant No. 2 or its equivalent, or at such other plant or plants adjacent or near thereto as it may construct, using the most economical source of power available. The annual production of these fertilizers shall have the nitrogen content of at least 40,000 tons of fixed nitrogen, which is the present annual production of nitrate plant No. 2; and further, that if said plant is destroyed during the lease period the company shall restore the plant within a reasonable time to its former capacity. Guaranties are included in the proposal for carrying out this important provision, and a limitation of 8 per cent profit on the fair actual annual cost of production is fixed on the production of said fertilizer.

Eleventh. He also agrees to research improved methods of fertilizer production and to reasonably employ such improved methods.

Twelfth. It is further provided in the proposal that the Government of the United States shall have the right to enforce all of the provisions of the contract to be entered into between the Government and the company by the exercise of all usual legal remedies, and in addition thereto the company will agree that the Attorney General of the United States may, upon the request of the Secretary of War, institute proceedings in equity in the District Court of the United States for the Northern District of Alabama for the purpose of canceling and terminating the lease of Dam No. 2 or Dam No. 3, or both of them, because of such violation, or for the purpose of remedying or correcting by injunction, mandamus, or other process, any act of commission or omission in violation of the terms of this proposal or any contract made in furtherance thereof.

We feel it is proper to state that the committee insisted on a number of modifications of the Ford proposal as submitted to the committee, particularly in connection with more specific language covering the termination of the lease period and the language covering the guaranty to manufacture nitrogen for commercial fertilizer, and more clearly defining the character of the covenants and conditions to be embodied in the deeds and leases covering the property, all of which will be clearly seen from an inspection of the original and modified proposals, both of which appear in this report.

CONCLUSION OF MAJORITY AND REASONS THEREFOR.

The majority of the committee after hearing all of the evidence and after considering the various proposals, reached the same conclusion as that of the Committee on Military Affairs of the Sixty-seventh Congress, viz, that the offer of Henry Ford is the only proposal which meets all of the requirements of section 124 of the national defense act, and when judged in this light the Ford offer is found to be satisfactory in all respects.

First, as to responsibility.—His proposal is backed by his company, which is to have a capital of not less than \$10,000,000 paid in in cash. Its stock shall forever remain in the hands of American citizens. But not only this cash capital and the heavy cash investment which Mr. Ford must make at Muscle Shoals is the security, but the bill provides (sec. 23) that—

All of the contracts, leases, deeds, transfers, and conveyances necessary to effectuate the acceptance of said offer shall be binding upon the United States and jointly and severally upon Henry Ford, his heirs, representatives, and assigns, and the company to be incorporated by him, its successors, and assigns.

Second, as to satisfactory fertilizer production and the maintenance of nitrate plant No. 2.—Under this offer the Muscle Shoals development is not to be dismembered and sold piecemeal, and the power diverted primarily to other uses, but the development is to be kept intact and the nitrate plant—or a better one—is to be maintained and operated for the purposes for which Congress intended it.

The acceptance of this offer stops at once all Government loss and unproductive expenditure at Muscle Shoals. This loss has already totaled \$8,056,848 from the armistice to June 30, 1923, an average of more than \$1,000,000 annually. There is responsible assurance that nitrates will be produced to the full capacity of nitrate plant No. 2, amounting to not less than 40,000 tons of fixed nitrogen annually, which is the equivalent of 250,000 tons of Chilean nitrate, or would furnish sufficient nitrogen for 2,000,000 tons of 2-8-2 commercial fertilizer annually.

This is an amount of nitrate equal to the entire annual imports from Chile used by American agriculture before the World War.

The importance of such an obligation may be appreciated from the fact that, based upon the Department of Commerce reports, we find during the fiscal year ending June 30, 1923, American purchasers paid the Chilean Government not less than \$11,239,384 as a tax simply for the privilege of buying their supply of nitrate from that country.

The Chilean producers are reported to have made the claim that if compelled to do so by Muscle Shoals competition they will reduce their prices to one-half or even one-third of their present levels. If, however, the establishment of the nitrogen industry at Muscle Shoals under the Ford offer merely results in eliminating the export duty collected by Chile for the privilege of purchasing nitrates in that country, it would have paid a dividend to American farmers and consumers of more than 5½ per cent on a valuation of \$200,000,000.

The committee was unanimously of the opinion that a development as essential to the national defense as the Muscle Shoals project, should never be permitted to fall into the hands of nationals of other countries who might possibly become our enemies. It was therefore provided in the bill (sec. 22) that—

No stock or bonds issued by any company or subsidiary company in connection with the lease of the dams referred to herein or in connection with nitrate plant No. 2, or any substitute therefor or addition supplementary thereto shall be owned or controlled by any foreign corporation, citizen, or subject.

Third, as to the assurance that the benefits of economical production of fertilizers will be passed on to the consumer.—The provisions of the offer in this regard are unique in the history of American business. Mr. Ford not only proposes to limit his profits on fertilizer to 8 per cent of the "fair actual annual cost of production," but he agrees to

the creation of a board of farmers to determine what the "fair actual annual cost of production" has been and to regulate the price of fertilizer and its distribution to farmers, their agencies, or organizations.

No one can study the carefully drawn provisions for the selection of this board without being impressed with the care with which the interests of the consumer have been safeguarded.

Fourth, as to a reasonable financial return to the Government.—In considering a plan involving such heavy obligations for 100 years, we agree with President Coolidge, who said in his message to Congress that "the amount of money received for the property is not a primary or a major consideration," but reference to the comparison set up below (page 59) shows that on a most conservative basis it may be reasonably anticipated that under the Ford offer the annual financial gain over its nearest competitor is not less than \$235,000.

The detailed study of the financial returns under the Ford offer further shows that on a most conservative basis the returns to the Government during the life of the lease would amount to some \$345,000,000 (p. 59), and, as shown by the Secretary of War (p. 18), if the sinking fund were invested at, say, 5 per cent (by investing in Federal farm loan bonds, for instance) the sinking fund would amount to \$100,000,000 instead of \$49,000,000 and the total returns would amount to nearly \$400,000,000.

These estimates take no account of the value to the country of a material reduction in the cost of nitrates and other fertilizers. If the economical large-scale production of nitrates at Muscle Shoals should merely result in the elimination of the import duty on Chilean nitrate, the saving to American consumers, based on last year's record, would amount to the sum of \$1,100,000,000 in 100 years.

It has been widely published that the offer of the Associated Power Companies was better than Mr. Ford's because they offered to pay \$100,000,000 for Muscle Shoals. It should be understood, however, that they did not offer this amount as a purchase price for the property. It simply represents an approximate total of their 4 per cent interest payments; and at that the figure is somewhat in excess of the real amount. Their total annual interest payments average \$3,076,000 on both dams, while Mr. Ford's interest payments average \$2,459,200, but as shown in the comparison below (p. 59) other returns accruing to the Government under the Ford offer result in an annual balance over and above the power companies' offer of about \$235,000.

Fifth, as to the length of the lease period.—During the hearings certain witnesses have laid much stress upon the fact that Mr. Ford asks a 100-year lease period, while the Federal water power act limits the lease period to 50 years, and certain bidders have proposed the 50-year lease and argued it as a reason for the acceptance of their offers. The majority of the committee, however, has not regarded the length of the lease as a vital point in any offer. The only argument for a 50-year lease period is that at the end of that time the United States might secure a larger return for its water-power rights than is now possible. On the other hand, this rental immediately becomes a fair charge against the power users and as such it is merely a form of Federal taxation assessed against a certain group or class of consumers. This is true no matter whether the consumer buys power or any article whatever made by use of the power. Even if it were desirable to secure "all

that the traffic will bear" for the Government's power rights the committee sees no reason for rejecting the Ford offer on the assumption that now or in the future a better offer will be made.

There is nothing in the history of the electric power business to indicate that water-power rights will be more valuable 50 years hence than they are to-day. On the contrary, the proposed superpower plans, the recent improvements in steam power, and the wide field of improvement suggested by substituting other vapors than steam for power purposes, as seen in the new mercury boilers, all indicate that in the future, as always in the past, the tendency will be toward cheaper power, which means less and not greater value for undeveloped water-power rights.

This being true, the longer the lease period of a contract as advantageous to the Government and to the consumer as the Ford offer, the better the public interest is served.

If the sinking fund is to have a life equal to that of the lease period, a 50-year lease becomes disadvantageous, for it requires about seven times as large an annual payment into a 4 per cent sinking fund to retire a given amount in 50 years as it does to retire the same sum in 100 years. It is only by using a long-time sinking fund that electric power can be relieved of its capital charges for the benefit of future generations without appreciably affecting the cost of power to the present generation.

Sixth, as to the conditions during and at the end of the lease period.—No objection to the Ford offer was more persistently urged than the fact that his lease of the dams is not subject to the terms of the Federal water-power act. It has even been argued that Mr. Ford would be wholly unregulated because he would not be under the Federal water-power act.

On the contrary, no licensee under the Federal water power act was ever burdened with such regulations and obligations as is Mr. Ford under his offer. His first obligation is to produce a large tonnage of fertilizer, in which he is not allowed a profit of more than 8 per cent annually; he must maintain one of the world's largest explosives plants at his own expense for 100 years; when he sells power to the public he immediately comes under the jurisdiction of the States in which he does business, and at the end of the lease period he is not entitled to be bought out for cash by the United States or any other licensee.

This latter condition is an objectionable provision of the Federal water power act which in our opinion far offsets any supposed benefit which can come from a 50-year lease period. It has been claimed that licensees under the power act have no right of renewal at the end of the lease period, but if the lease is to be ended, then under sections 14 and 15 of the act either the United States or the new licensee must pay to the retiring licensee the "fair value" of all property owned or held by the licensee power company which is then valuable and serviceable in the development, transmission, and distribution of power and which is dependent for its usefulness upon the continuation of the license. In addition to this "severance damages" must be paid to the retiring licensee caused by severance of property taken from property not taken.

With the growth of great superpower systems in the Southeast, who can say what power plants and transmission lines will not be

dependent upon this great water power once it is interconnected and its power is relayed throughout this entire region?

Who can assess the "severance damages" if it is desired to "recapture" such a plant under the power act? How many hundreds or thousands of damage suits would have to be settled under the power act if the United States desired to use the power for its own purposes at the end of 50 years? No one knows beyond the undeniable fact that the aggregate would be a sum that would stagger the imagination, and the practical effect, well known to the power companies, would be that the so-called 50-year license would become, in fact, a lease in perpetuity.

So we have three policies of water-power development: First the policy of letting alone the water-power development on a "non-navigable" stream, although practically every stream effects the flow of some navigable stream sooner or later; second, the policy of granting so-called 50-year leases for power development on navigable streams, leases which in all human probability are as perpetual as the flow of the streams themselves; and, third, the policy of water-power development under such a plan as proposed by Mr. Ford wherein the benefits of low-interest-rate money, which are so important in a hydroelectric development, are had, and a sinking fund is provided for in order to return to the Government its entire investment during the lease period. Under such a plan the Government receives a fair rate of interest and at the end of the lease is in full possession of its property and has received back its entire investment, including not only its investment for power purposes but for navigation purposes as well. Meanwhile the power has paid the cost of operation and maintenance of the navigation improvements.

Is an amortization fund fair to capital? We think that it is. It has become an accepted industrial policy in this country to substitute labor-saving machinery for hand operations, even though thousands of people have been thrown out of work in the process. If labor-saving devices are fair to labor, then capital-saving devices are fair to capital, and an amortization or sinking fund is merely a capital-saving device.

For convenience of members the committee has compared the Ford offer with that of the Associated Power Companies, which was its nearest competitor. The comparison, with a summary of the policy followed in judging offers, is as follows:

PROPOSAL OF THE ASSOCIATED POWER COMPANIES COMPARED WITH THAT OF HENRY FORD.

1. THE CHARACTER OF THE OFFERS AND THE RESPONSIBILITY BEHIND THEM.

Adequate financial responsibility behind a straightforward undertaking has been the first consideration in judging any bid. The committee last year fixed the capital that should be required of any company that is to operate Muscle Shoals at not less than \$10,000,000 paid in, in cash. Holding companies which are to have the electric power, while their subsidiaries evade the spirit of the law by operating a small nitrate plant, do not constitute a satisfactory solution of the problem.

POWER COMPANIES' OFFERS LACK ADEQUATE GUARANTEE.

The power companies agree that their corporation capitalized at \$10,000,000 or less (which is to have all of the power not utilized in fertilizer manufacture) shall guarantee the obligations of their \$5,000,000 company (which definitely agrees to fix only 5,000 tons of nitrogen per year), but it is not specified in the case of either corporation that its capital shall be fully paid in in cash.

The power companies themselves specifically decline the responsibility of the undertaking, for they say in paragraph 10 of their fertilizer offer that the companies shall have discharged their obligations as to fertilizer manufacture when their \$5,000,000 company has been organized and its contract with the United States has been made.

Under such an arrangement the fertilizer operations could easily be made to show a loss and be limited to 5,000 tons of nitrogen annually, leaving the power companies in undisputed possession of practically the entire power at Muscle Shoals for their own purposes.

FORD OFFER BACKED BY HENRY FORD AND HIS ESTATE AS WELL AS HIS \$10,000,000 COMPANY.

"For the purpose of carrying out the terms of this agreement, the undersigned will form a corporation (hereinafter referred to as the company), with a capital stock of \$10,000,000 or more, of which at least \$10,000,000 shall be paid in, in cash, to be controlled by the undersigned." (Par. 1, Ford offer.)

"Upon acceptance, the promises, undertakings, and obligations shall be binding upon the United States, and jointly and severally upon the undersigned, his heirs, representatives, and assigns, and the company, its successors and assigns." (Sec. 20, Ford offer.)

The Acting Judge Advocate General, John A. Hull, testified regarding these provisions (House hearings, 1922, pp. 196 and 190:

"A careful study of the language convinces me that Mr. Ford is bound as well as the company and is not discharged the minute the company is organized and undertakes these matters * * *. Mr. Ford obligates his estate and the company when organized."

If Mr. Ford fails to live up to his contract the Government can not only cancel his lease of the water power, but it can cancel his deeds and take its property back, for paragraph 13 of his offer provides that "each of said deeds shall refer to or contain the provisions of this offer, and said deeds shall be so drawn as to make such provisions covenants running with the land."

2. HOW THE OFFERS MEET THE POLICY OF CONGRESS IN PROVIDING THE NITRATE PLANT.

When Congress passed section 124 of the national defense act (of June 3, 1916) providing for the construction of the nitrate plant, the policy of maintaining a nitrate plant for the production of explosives in time of war and of fertilizers in time of peace was established. The development was made at Muscle Shoals because that sheltered locality offered the best opportunity for the successful carrying out of such a policy.

The committee has therefore required adequate fertilizer production and provision for the maintenance of the nitrate plant ready for immediate production of military explosives as essentials in the consideration of any offer.

Since experts are agreed that rapid progress may be expected in the art of nitrogen fixation, the committee regarded it as very important that the offer accepted should provide that the nitrate plant be kept up to date.

POWER COMPANIES' DEFINITE OFFER IS LIMITED TO AN AGREEMENT TO OPERATE ONE UNIT OF THE NITRATE PLANT HAVING A CAPACITY OF AT LEAST 5,000 TONS OF NITROGEN ANNUALLY.

The power companies make a conditional offer to produce annually fertilizers containing 50,000 tons of fixed nitrogen, but their definite agreement reads (par. 4):

"As soon as this proposal is accepted by the United States the company will commence the construction of the first unit of the plant sufficient to produce annually fertilizers which contain at least 5,000 tons of nitrogen, and will complete and place the same in operation as soon as possible after the power for the operation thereof is available from Dam No. 2."

They are not required to operate even this small plant to full capacity.

They agree to offer their fertilizer products for sale direct to farmers and other consumers of fertilizers.

MAINTENANCE OF NITRATE PLANT NO. 2 TO BE EITHER AT EXPENSE OF THE FARMER OR OF THE GOVERNMENT. NO OBLIGATION TO KEEP PLANT UP TO DATE.

The power companies provide for the maintenance of nitrate plant No. 2 for production of explosives in time of war, but they specify (par. 3) that "the expense thereof is to be either included in the cost of the manufacture of fertilizer under this offer or deducted from the rent payable under said proposal of January 15, 1924."

3. HOW THE BENEFITS OF ECONOMICAL FERTILIZER PRODUCTION ARE TO BE ASSURED TO THE FARMER OR OTHER CONSUMER.

Ever since the nitrate plants were first proposed in 1916, experts have repeatedly testified that it may be reasonably anticipated that at Muscle Shoals commercial fertilizers can be produced by modern methods so that the farmer can buy them at half or less than half of the present prices. The advantages of large-scale operation under the favorable conditions existing at Muscle Shoals are beyond dispute.

Satisfactory assurance that these economies will be passed on to the consumer was an important consideration in dealing with these offers.

FORD OFFER GUARANTEES PRODUCTION OF 40,000 TONS OF NITROGEN ANNUALLY.

The Ford offer is a definite proposal to make a definite commercial contract for the manufacture, sale, and distribution direct to farmers, their agencies, or organizations, of a tonnage of commercial fertilizers containing not less than 40,000 tons of fixed nitrogen annually, which is the full capacity of nitrate plant No. 2. The nitrogen fertilizer is to be supplied either as mixed fertilizer (containing the other plant foods—phosphoric acid and potash) or unmixed, according to demand.

This is an agreement to produce annually an amount of nitrate equal to the entire amount annually imported from Chile for use by American agriculture before the World War.

MAINTENANCE OF NITRATE PLANT NO. 2 TO BE AT EXPENSE OF HENRY FORD OR HIS COMPANY. OBLIGATION INCLUDES KEEPING PLANT UP TO DATE.

Under the Ford offer Henry Ford and his company are jointly and severally obligated for 100 years (sec. 14-b) "to maintain nitrate plant No. 2 in its present state of readiness, or its equivalent, for immediate operation in the manufacture of materials necessary in time of war for the production of explosives."

He also agrees to research new processes for the production of nitrates and "to reasonably employ such improved methods" (sec. 14-a). His agreement, therefore, is not only to maintain the nitrate plant but to keep it up to date.

POWER COMPANIES ASK LARGER PROFIT ON FERTILIZER.

Paragraph 5 of the power companies' offer states, regarding their fertilizer company, that "The maximum net profit which it shall make in such manufacture and sale of fertilizer products shall not exceed 8 per cent of the fair actual annual cost of production and sale thereof.

POWER COMPANIES' BOARD OF FARMERS LACKS SUPERVISORY POWERS AND MAY BE REMOVED OR APPOINTED AT ANY TIME BY SECRETARY OF AGRICULTURE.

Section 6 of the power companies offer reads:

"The Secretary of Agriculture may from time to time prescribe regulations for distributing the products of said plant in accordance with this offer. He may from time to time appoint and remove boards consisting of one or more representatives of his department, one or more farmers or representatives of farmers' associations and a nominee of the company to supervise the enforcement of such regulations and to advise with the company from time to time as to the price to be charged farmers and other actual consumers and users of said products."

(SEC. 7 of the power companies' fertilizer offer reads:

"The corporation shall agree to file annually with the Secretary of Agriculture statements showing the cost and profits of the corporation from the operations under this offer, to permit the audit and verification of such statements by said official, and if during the year covered by any such statement the corporation shall have made profits in excess of those permitted by this offer, such excess profits shall be deducted from the cost of the products sold during the calendar year in which such statement is settled."

FORD ASKS SMALLER PROFIT ON FERTILIZER.

Section 15 of Mr. Ford's offer states that "The company agrees that the maximum net profit which it shall make in the manufacture and sale of fertilizer products shall not exceed 8 per cent of the fair actual annual cost of production thereof."

FORD AGREES THAT BOARD OF REPRESENTATIVE FARMERS MAY REGULATE PRICE, SALE, AND DISTRIBUTION OF ALL FERTILIZER PRODUCTS FREE FROM THE JURISDICTION OF ANY POLITICAL APPOINTEE.

Section 15 of the Ford offer provides a board of nine voting members seven of whom are official representatives of national farm organizations nominated by the President of the United States and confirmed by the Senate.

"The said board shall determine what has been the cost of manufacture and sale of fertilizer products and the price which has been charged therefor, and, if necessary for the purpose of limiting the annual profit to eight per cent (8%) as aforesaid, shall regulate the price at which said fertilizer may be sold by the company. For these purposes, said board shall have access to the books and records of the company at any reasonable time. In order that such fertilizer products may be fairly distributed and economically purchased by farmers and other users thereof, the said board shall determine the equitable territorial distribution of the same and may in its discretion make reasonable regulation for the sale of all or a portion of such products by the company to farmers, their agencies, or organizations. If and when said board can not agree upon its findings and determinations, then the points of disagreement shall be referred to the Federal Trade Commission (or its legal successor) for arbitration and settlement, and the decision of said commission in such cases shall be final and binding upon the board."

4. FINANCIAL RETURNS TO THE GOVERNMENT.

[NOTE.—The power companies made a 50-year offer; Mr. Ford made a 100-year offer, in fairness to each, they must be compared on the basis of what they have offered. This has been done by totaling the returns for each, and determining the average annual return from each.]

The cost of Dam No. 3 has been assumed at \$30,000,000 since the Associated Power Companies and Mr. Ford each agree to pay 4 per cent on that amount, but Dam No. 3 may be omitted entirely without affecting the comparison, the only difference between the offers being that the power companies limit their interest payments to 4 per cent on \$30,000,000 while Mr. Ford pays 4 per cent on the total cost no matter what that cost may be.

POWER COMPANIES' OFFER.		FORD OFFER.	
Interest on cost of Dam No. 2: Associated Power Co.'s estimate of the amount of their rental for 50 years (Government exercising its option to install all units), including steam plant.....		Interest on cost of Dam No. 2: First 6 years, at \$200,000.....	
	\$96,800,000		\$1,200,000
		Next 94 years, at 4 per cent on \$34,000,000 ¹	
			127,840,000
		Total interest for Dam No. 2.....	
			\$129,040,000
Interest on cost of Dam No. 3: First 3 years, at \$200,000.....		Interest on cost of Dam No. 3 (taken at \$30,000,000): First 3 years, at \$160,000.....	
	\$600,000		\$480,000
Next 47 years, at 4 per cent on not over \$30,000,000, or 47 years, at \$1,200,000 ²		Next 97 years, at \$1,200,000.....	
	56,400,000		116,400,000
Total for Dam No. 3.....		Total interest for Dam No. 3.....	
	57,000,000		116,880,000
Interest for 50 years, at 4 per cent on payment of Alabama Power Co. of \$3,472,487.25 for Gorgas plant.....		Interest at 4 per cent on cash payment of \$5,000,000 for nitrate plants for 100 years, making a total of.....	
	6,944,974		20,000,000
		Amortization fund (at minimum rate of 4 per cent ³): Return of capital invested.....	
			49,071,935
		Maintenance of nitrate plants, 100 years at \$250,000 per year (average annual maintenance cost to date has been \$277,442 ⁴), but assume that it is only \$100,000 per year and the maintenance for 100 years amounts to.....	
			10,000,000
		The replacements ⁵ necessary in the nitrate plant, on a 100-year basis have been estimated by the Ordnance Department at \$400,000 per year ⁶ but taking half this amount the total in 100 years would be.....	
			20,000,000
Total returns in 50 years.....		Total returns in 100 years.....	
	160,744,974		344,991,935
Average annual payment as above.....		Average annual return as above.....	
	3,214,899		3,449,919
		Annual financial gain by accepting Ford offer.....	
			235,020

¹ Estimate of United States engineers for cost of Dam No. 2 complete is now \$51,000,000, from which is to be deducted the wartime expenditure of \$17,000,000, leaving \$34,000,000 on which Mr. Ford pays interest.

² If the cost of Dam 3 exceeds this amount Mr. Ford still agrees to pay 4 per cent on its full cost.

³ If Dam 3 costs more than \$30,000,000, companies decline to pay 4 per cent interest on its full cost.

⁴ See Secretary of War's report on Ford offer (p. 18).

⁵ Data from nitrate division, Ordnance Department, United States Army. The maintenance and depreciation of the nitrate plant (No. 2) are provided for at the expense of Mr. Ford or his company, but in the power companies' offer it is specified that the cost of maintaining nitrate plant No. 2 for war purposes shall be charged either against the farmer or against the Government. Since this expense for national defense manifestly is not chargeable against fertilizer production, it is proper to show it as a credit on the Ford side and to omit it from the power companies' side of the comparison.

⁶ Hearing before Senate Agricultural Committee on Muscle Shoals, June 22, 1922, p. 932.

⁷ No attempt is made to cover the actual depreciation in this estimate.

5. THE LENGTH OF THE LEASE PERIOD.

Contrary to the public emphasis which has been laid upon this feature the majority of the committee has raised no special issue with bidders as to the length of the lease period.

The only argument for a 50-year lease period is that at the end of that time the United States might secure more rental for its water-power rights than is now possible. In view of the fact that this rental immediately becomes a fair charge against the power users, such a charge with percentages of profit is merely a form of Federal taxation directed against a certain group or class of power users.

Even if it were desirable to secure "all that the traffic will bear" for the Government's power rights, the committee sees no reason for rejecting the Ford offer on the assumption that now or in the future a better offer will be made.

There is nothing in the history of the electric power business to indicate that water-power rights will be more valuable 50 years hence than they are to-day. On the contrary, the proposed super-power plans, the recent improvements in steam power, and the wide field of improvement suggested by substituting other vapors than steam for power purposes, as seen in the new mercury boilers, all indicate that in the future, as always in the past, the tendency will be toward cheaper power, which means less and not greater value for undeveloped power rights.

This being true, the longer the lease period of a contract as advantageous to the Government and to the consumer as the Ford offer the better the public interest is served.

It has been shown that by far the greatest item entering into the cost of hydroelectric power under present methods of financing is the interest on the investment. This can be greatly reduced through the operation of a long-time sinking fund to retire the capital invested. Such a retirement fund can be set up over a 100-year period for about one-seventh of the annuity required for a 50-year period.

POWER COMPANIES' OFFERS SPECIFY
50-YEAR LEASE PERIOD.

The lease period has no effect on rates charged, except perhaps to justify the use of a sinking fund annuity seven times as large as for a 100-year fund, adding directly to the cost of the power.

The offer of the power companies does not recognize the use of a sinking fund to reduce the cost of power by reducing the capital charges upon it.

FORD OFFER SPECIFIES 100-YEAR LEASE
PERIOD.

The Ford offer calls for a guaranty of large-scale fertilizer production at not more than 8 per cent for 100 years.

It calls for maintenance of nitrate plant No. 2 or its equivalent ready to produce explosives for 100 years.

It provides for a 100-year sinking fund which, if invested in 5 per cent Federal farm loan bonds, will return to the Government more than \$100,000,000 at the end of the lease period.

It relieves the power of most of its capital charges and makes possible its ultimate production at much less cost.

6. CONDITIONS DURING AND AT END OF LEASE PERIOD:

Satisfactory conditions in the public interest must be provided during and at end of lease period.

POWER COMPANIES OFFER MEANS PROBABLY A PERPETUAL LEASE.

The power companies' offer comes under Federal water power act and companies' property affected must be purchased if lease is to be terminated at end of 50 years. In all probability the value of the property depending on this power can be made to appear so great as to make the lease perpetual instead of for 50 years.

SEVERANCE DAMAGES MUST BE PAID AT END OF LEASE PERIOD.

Property damaged by the sale of property taken at end of lease is entitled to "severance damages" under the power companies' proposal. The amount of such damages in the case of a power the size of Muscle Shoals would be tremendous.

NO AMORTIZATION OF INVESTMENT.

The power companies do not recognize the principle of amortizing and retiring the capital invested and relieving the power of this large part of its cost. Under their plan of financing the consumer pays the heavy interest charges on the power indefinitely.

FORD OFFER PROVIDES DEFINITE PRACTICAL LIMIT TO LEASE PERIOD.

The Ford offer does not come under Federal water power act. Lease can be terminated at end of 100 years with no obligation of Government to buy out any property whatever.

NO SEVERANCE DAMAGES.

No property to be purchased and no severance damages are to be paid under the Ford offer.

COMPLETE AMORTIZATION OF INVESTMENT.

The Ford offer provides for a sinking fund to retire the capital invested and to relieve the consumer of the interest charges which form a large part of the cost of generating and distributing water power.

FOUR FIELDS OF USEFULNESS AT MUSCLE SHOALS.

The majority of the committee recognized that there are four distinct fields of usefulness in which valuable service can be had at Muscle Shoals: First, nitrate manufacture for national defense; second, fertilizer production; third, power development; fourth, navigation improvement.

The first two are closely associated, and the plant that is most valuable for production of explosives in time of war is most efficient as a source of nitrates for fertilizer in time of peace. It is also true that under such a plan as Mr. Ford has proposed there is a close relation between the power development and the navigation improvement. Under this proposal the power not only returns a fair rate of interest on the cost of its development but it returns interest to the Government on its navigation improvement and provides a sinking fund which refunds to the Government its entire navigation investment. Merely by the use of its credit the Government can secure 150 miles of slack-water navigation on the Tennessee River and its tributaries without any appropriation whatever.

When it is realized that we have expended nearly \$20,000,000 on the improvement for navigation of the Tennessee River and its tributaries, outside of the present Muscle Shoals development, and practically one and a quarter billions of dollars on national river and harbor improvement as a whole, without the prospect or expecta-

tion of receiving any interest whatever on this huge outlay, or the return of any part of the principal, it is evident that here is a policy that is not merely of local interest at Muscle Shoals but that offers promise of nation-wide benefits if adopted generally in the improvement of our navigable streams where power development is practicable.

IN CONCLUSION.

In conclusion we would quote from the report of the Committee on Military Affairs of the Sixty-seventh Congress submitted June 9, 1922, in which we still concur:

Two courses are open—one Government ownership and operation, which in view of the character of the project would, in the judgment of the majority of the committee, mean not only the failure from the standpoint of income but disaster to the hopes of the farmers and other users of commercial fertilizer. To have the Government undertake to engage in the manufacture of fertilizer ingredients with political superintendents, foremen, and straw bosses is unthinkable, and to undertake such a scheme would be unspeakable folly.

The alternative course is to sell the tangible property to private individuals or to a corporation on conditions prescribed by Congress, lease the power at a fair rental, and permit individual American initiative and ingenuity to have an opportunity at this place, where the greatest water power in our country can be developed, requiring the preservation of the element of national defense and at the same time giving an opportunity for relief, if such there can be, to not only the Southland but our entire country in the way of commercial fertilizer at reasonable prices.

Is this possible? Does the Ford proposal promise such a consummation? We feel that it does, or at least it is the only proposal yet made by anyone that even gives ground for hope, and while his offer is not entirely free from objections, as evidenced by the elimination of certain features of it by the committee, it is of such great potential possibilities that the committee felt assured that action by Congress would be prompt and a final and satisfactory adjustment of the matter could be reached. We respectfully recommend favorable action on the bill at the earliest date possible.

MUSCLE SHOALS.

FEBRUARY 9, 1924.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed.

Mr. HULL of Iowa, from the Committee on Military Affairs, submitted the following

MINORITY VIEWS.

[To accompany H. R. 518.]

Mr. Hull of Iowa, for himself and for Messrs. John M. Morin, Harry C. Ransley, John Philip Hill, Louis A. Frothingham, and J. Mayhew Wainwright, from the Committee on Military Affairs, submitted the following minority views:

We do not favor acceptance of the Muscle Shoals offer of Henry Ford embodied in the committee bill for the following principal reasons:

In our opinion it amounts to a gift of enormous property and industrial advantage to a private citizen from the resources of the United States. No government, and especially no democracy, can single out for special favor any individual or group of individuals without grave wrong, injustice, and scandal.

We do not think it just or wise or proper for a government to bestow largess upon individuals, no matter how great or good or beneficent or efficient they may be.

The Government has constructed works of tremendous value and importance at Muscle Shoals. They represent an investment of more than \$135,000,000. This is the actual cost to the taxpayers of the United States.

Dam No. 2 and hydroelectric installation of 18 units will, when completed, be the largest dam in the world and represent an investment of more than \$51,000,000.

Nitrate plant No. 1 represents an investment of more than \$12,000,000. It includes 1,900 acres of land. In addition to nitrate plant No. 1 there are large permanent substantial buildings for various smaller manufacturing purposes. Located on this tract are 125 permanent residences with all modern improvements; also 9 miles of macadam roads; also 8 miles of sewerage; also 4 miles of standard-gauge railroads with necessary locomotives, cars, repair shops, etc. There are paved streets and water works.

Nitrate plant No. 2, including the Waco quarry, represents an investment of more than \$67,000,000. It includes 2,300 acres of land. On this tract are 186 permanent residences, many of them with two bathrooms, including expensive electric-lighting fixtures, water-supply, sewers, etc. These great nitrate works include the largest buildings of their kind in the world. There are also a number of permanent buildings for various small manufacturing purposes, such as sawmills, blacksmith shops, etc.

On this tract comprising nitrate plant No. 2 there is a hotel which is completely furnished and equipped, containing more than 100 rooms. On this tract there are 24 miles of improved roads and cemented sidewalks and streets; there are on this tract about 40 miles of standard-gauge railroad tracks; there are 20 miles of sewers; there is also on this tract a complete waterworks and sewerage system; and there is attached to this nitrate plant No. 2 a steam plant for the generation of electricity, known as the Sheffield steam plant, which alone cost more than \$12,000,000. This plant is in high-class running order to-day and is being used. There should be included in this picture the fact that there is \$500,000 worth of platinum in storage at the United States subtreasury in New York belonging to the nitrate plants for use in a catalyst for extracting nitrogen from the air. There is also cash in the United States Treasury amounting to \$3,472,487.25, recently received by the Government for the sale of the Gorgas steam plant, which it is proposed under the committee bill with the Madden amendment to immediately spend in behalf of Mr. Ford's offer for the construction of an auxiliary steam plant for his benefit.

In return for all the above, including the platinum valued at \$500,000 and the \$3,472,487.25 cash now in the United States Treasury, Mr. Ford proposes to pay to the United States Government \$5,000,000, and that only in several annual installments.

In other words, Mr. Ford proposes to pay \$5,000,000 for the following property:

Nitrate plant No. 2, costing.....	\$66, 252, 392. 21
Nitrate plant No. 1, costing.....	12, 887, 941. 31
Waco quarry, costing.....	1, 302, 962. 88
Cash from sale of Gorgas plant.....	3, 472, 487. 25
Total.....	83, 915, 783. 65

The Government, if it wants to part with the steam plant for the generation of electricity attached to nitrate plant No. 2, known as the Sheffield steam plant, is now offered by one of the bidders appearing before Congress in this matter the sum of \$4,500,000 spot cash for this one unit alone.

Such are Mr. Ford's demands.

A group of power companies in the South has made to the War Department another offer. The contrast between Mr. Ford's offer and their offer is set forth in the following table:

COMPARISON OF PENDING BILLS.

HULL BILL (H. R. 6781), BASED ON
NITRATE POWER COMPANIES' OFFER.

1. (a) \$15,000,000 of capital (one company). Owned by Americans.

2. (a) United States deeds to company:

Nothing.

3. (a) United States leases for 50 years nitrate plant No. 1 and power plants under Federal water power act.

4. (a) Agrees to make 50,000 tons annually of fixed nitrogen.

To furnish 100,000 horsepower for fertilizer at cost, and 40,000 additional as required.

To maintain nitrate plant No. 2 at present nitrogen capacity of 40,000 tons.

In case of war, 90,000 tons of nitrogen available.

5. (a) Forfeiture of lease on nitrate plant and water power plants if agreement violated.

Government may take over in case of war; does not require Government to protect company against losses.

6. (a) Government has right to recapture all property leased at end of 50 years.

7. (a) Federal water power act provides that no value shall be allowed for power leases in cases of recapture.

8. (a) Regulation by public authority as to rates, service, and security issues.

Profits limited by public authority.

M'KENZIE BILL (H. R. 518), BASED ON
FORD OFFER.

1. (b) \$10,000,000 of capital (one company); personal liability of Ford limited to formation of corporation with above capital. Owned by Americans.

2. (b) United States deeds to company property costing:

Nitrate plant No. 1..... \$12, 888, 000

Nitrate plant No. 2, including 90,000 horsepower steam plant..... 66, 252, 000

Waco quarry..... 1, 303, 000

New 40,000 horsepower steam plant and transmission line to be erected by Government..... 3, 472, 000

Total..... 83, 915, 000

3. (b) In addition to deeding above properties, United States also leases for 100 years the water-power plants, disregarding Federal water power act.

4. (b) Agrees to make 40,000 tons annually of fixed nitrogen.

No promise as to amount or cost of power.

To maintain nitrate plant No. 2, or its equivalent (estimated by Ordnance Department to cost not over \$100,000 per annum, or \$10,000,000 in 100 years).

In case of war, 40,000 tons of nitrogen available.

5. (b) No forfeiture of nitrate plants, steam plants, or quarry for violation of agreement; forfeiture under certain conditions of water-power lease. Government loses control and ownership of both nitrate plants, steam plants, and quarry, except may take over plant No. 2 in case of war on "protecting company from losses occasioned by such use, and shall return the said property in as good condition as when received and reasonably compensate company for the use thereof."

6. (b) No right of recapture as to nitrate plants, steam plants, and quarry.

Ford has preferred right to renew water-power leases at end of 100 years.

7. (b) In absence of express stipulation, courts would be required to value power leases in proceedings to take over power plants by Government if that should ever be desirable.

8. (b) No regulation of rates, service, or security issues.

Profits not regulated except as to fertilizer.

9. (a) Power in excess of that used in fertilizer available throughout South-eastern States.

10. (a) Offers cash payment of \$4,500,000 for 90,000-horsepower steam plant at Muscle Shoals if Government desires to sell.

Government retains title to balance of properties.

Devotes at least \$1,000,000 for research work.

11. (a) Agrees to pay toward head-water improvements as required by Federal water power act.

12. (a) Rental Dams Nos. 2 and 3 for 50 years, \$138,084,400; total for 100 years, \$295,624,400.^a

Savings to Government for 50 years, \$34,218,000.

Savings to Government for 100 years, \$75,660,000.

9. (b) Power available only to Ford plants at Muscle Shoals.

10. (b) Offers \$1,527,512.75 for both nitrate plants, steam plants, and quarry costing Government over \$80,000,000, and divests Government of title to same.

No sum for research work.

11. (b) Pays nothing for headwater improvements.

12. (b) Rental Dams Nos. 2 and 3 for 50 years, \$103,866,654; total for 100 years, \$219,964,954.^z

Some of our colleagues have favored acceptance of the Ford offer because they regarded this as the only feasible means for securing the development and utilization of Muscle Shoals. It will be remembered that a sharp controversy arose in the House of Representatives several years ago as to whether further money should be appropriated for the completion of the Wilson Dam. Upon this question the House sharply divided and in the closing hours of the Sixty-sixth Congress an appropriation for that purpose was defeated by a vote in the House. To many persons the meaning of the vote seemed to be that the Government itself would go no further in making the development and this was the situation when the Ford offer first appeared. It was apparently the only way to insure the completion of the dam and utilization of the works for the purpose for which they were originally intended. It seemed for the time being even that the great nitrate works at Muscle Shoals might otherwise be practically abandoned.

Support of the Ford offer under these circumstances bears no resemblance to the present problem before the House. Since that time Congress has voted many millions of dollars for the completion of the Wilson Dam and clearly indicated its purpose to complete the entire development there and retain the nitrate works and the vast power plants in such a manner as to be always available for national defense. It is now clear that to secure these great advantages and to carry out this enlightened policy no such sacrifice as would be involved in the acceptance of the Ford offer is necessary.

It now appears that the glaring defects of the Ford offer are apparent and its support is no longer justified.

REAL VALUE OF PROPERTIES NOT UNDERSTOOD.

It is only fair to Mr. Ford to remember that his offer was formulated two and a half years ago, when the value and permanent character of the works at Muscle Shoals was not understood by the country, possibly not by Mr. Ford himself. It was a period when beach-combing for values washed up by the floods and surges of the great world conflict was prevalent in the United States. Appetites for great and quick profits and increased wealth had been whetted by

the experiences and opportunities of the war period. Many of these opportunities came to a standstill with the armistice, but appetites were still keen. Properties were being purchased from the Government at salvage values representing an insignificant proportion of their cost. In the atmosphere of this period Mr. Ford made his proposal for the properties at Muscle Shoals. The common expression at the time was that the Muscle Shoals properties of the Government was a "white elephant" and Mr. Ford's first bid was hailed as an "opportunity" to take the animal off the Government's hands.

In the light of present knowledge of the values at Muscle Shoals the absurdity of this view is clear. But if that view was absurd, what of the offer of Mr. Ford which has not changed with the new enlightenment?

The gift of property is staggering, but it is not all or nearly all. No individual and no corporation in the United States has the unregulated control of 900,000 horsepower, or anything remotely approaching that figure. Its industrial meaning is too great to translate into figures. Mr. Ford is an industrial genius, but he has competitors. He will have none when he secures the use of this power at the cost he is to secure it, and without let or hindrance in the way he uses it. He may turn his power to whatsoever branch of industry he fancies and he will command the field. Probably no one can ever secure power again from any source at the price he proposes to pay for it. He has prospered in industry without becoming a monopolist, but he will become a monopolist of power when this grant is made, a monopolist unique in our history, for good or evil as he happens to desire.

Supermen there have been, doubtless are, and will be again. In our own country they have performed, will again perform, great services. They present no danger when they give, but it is otherwise when they take. Ford proposes to take. There is the danger.

WATER-POWER POLICY OF CONGRESS IGNORED.

The statement of the benefits Mr. Ford is to secure is not overdrawn. It presents few disputed points. No one denies that he demands that Congress ignore its own policy in regard to the use of the natural resource of flowing waters which are under Federal control. He must have this reversal of established governmental policy in respect to tenure of water-power rights—a grant of the people's heritage—for a term of 100 years, with preferential rights for a further period, an exception in his favor that in the very essence is not only of great value now, but grows as time grows, to values and importance not yet dreamed of. The unregulated control of power generated at Wilson Dam and to be generated at Dam No. 3 would give to Mr. Ford and his successors, when he himself relinquishes, more control over millions of people than any one man ever ought to have.

Throughout the majority report effort is made to justify the violation by the Ford offer of every safeguard and principle of the Federal water-power act.

The 100-year term is justified by the statement that there is nothing in the history of the electric-power business to indicate that water-power rights will be more valuable 50 years hence than they are

to-day; and "that indications are that in the future, as always in the past, the tendency will be toward cheaper power, which means less and not greater value for undeveloped power rights. This being true, the longer the lease period of a contract as advantageous to the Government and to the consumer as the Ford offer the better the public interest is served."

In all the efforts of the power companies to obtain control of water-power rights in days preceding the enactment of the Federal water power act, no such daring principle was asserted to justify their insistence upon the 100-year permit. The evidence in this hearing showed that the water powers of the Southeastern States were fast being developed and would be exhausted within 15 or 20 years and the following table of potential water-power resources in these States, taken from the United States Geological Survey¹ reports, justifies this assertion:

	Horsepower.
North Carolina.....	875, 000
South Carolina.....	677, 000
Georgia.....	627, 000
Alabama.....	943, 000
Florida.....	13, 000
Tennessee.....	761, 000
Mississippi.....	63, 000
Louisiana.....	2, 000
Kentucky.....	197, 000
Total.....	4, 058, 000
Amount already developed in above States, including plants completed in 1922 and 1923.....	1, 500, 000
Balance.....	2, 558, 000
To be developed at Muscle Shoals for Henry Ford.....	850, 000
Balance of undeveloped water power remaining in 9 States for a population of over 18,000,000 of people.....	1, 708, 000

It will be noted that several of these States have scarcely any water power. It is proposed to install a total of 850,000 horsepower in Muscle Shoals plants, which will give a greater amount than exists in all other powers, developed and undeveloped, in several of these States, and is about one-third of all the undeveloped water-power resources in nine states having a population of over 18,000,000 people.

It has been pointed out many times by the Government and private agencies that our coal deposits are fast being consumed, and certainly there is every reason to feel that the coal deposits of Tennessee and Alabama (being in this immediate vicinity) will be far less, and hence more expensive for power use 50 years from now than at present. Therefore for a committee to assert that water power rights will perhaps be less valuable 50 years hence than at present defies all laws of economics.

DETAILED VIOLATIONS OF WATER POWER ACT.

The minority members of the committee desire to call attention to the following provisions of the Federal water power act, which would be violated or ignored if the Ford offer should be accepted:

¹ U. S. Geological Survey report of Feb. 25, 1922.

COMPREHENSIVE SCHEME OF DEVELOPMENT REQUIRED.

1. As a part and condition of any license issued to develop water power the project adopted, its plans, and specifications must be such in the judgment of the power commission that are "best adapted to a comprehensive scheme of improvement and utilization for the purposes of navigation, of water-power development, and of other beneficial public uses." (Sec. 10 (a).)

EXCESS PROFITS APPROPRIATED.

2. Excess profits of the licensee from the water must be paid to the United States, whether they are profits of a public utility or a private user. (Reg. 18, sec. 106.)

LIMITATION OF TERM AND RECAPTURE.

3. The franchise is limited to 50 years conditioned upon acceptance of all the terms and conditions of the act. (Sec. 6.)

At the end of the 50 years the right is reserved to the Government by subdivision (b) of section 14 to take over the project upon payment of the net investment by the licensee, but not to exceed its fair value, and excluding any consideration for good will, going value, or prospective revenues, or rights granted by the franchise. (Sec. 14.)

At the end of 50 years, in the event the Government does not exercise the right to take over the project, preference by subdivision (c) of section 7 is given to applications by States or municipalities.

The right of the United States or any State or municipality is expressly reserved to take over by condemnation proceedings and maintain and operate the project at any time during the 50 years' license period upon payment of just compensation to the licensee therefor. (Sec. 14, subdivision (a).)

That is, during the 50 years there is the right reserved in the United States to take over the property on paying just compensation.

RENEWAL.

No preference right for renewal of the franchise or any proprietary claim for power is secured to the licensee. If a license is renewed, it must be under the then existing law and conditions. (Sec. 15.)

NO TRANSFER WITHOUT APPROVAL.

4. The licensee can not execute a transfer of any right secured under the license or of property under the license without written approval of the power commission. All transfers or assignments, whether by judicial sale or foreclosure, must be subject to the conditions of the act. This provision is construed by the present power commission to extend to a lease of any property under license. (Sec. 8.)

MAINTENANCE AND OPERATION.

5. The licensee is required at its own expense, under supervision of the power commission at all times, to maintain the project adequately for purposes of navigation and efficient operation in the

development and transmission of power, must make all necessary renewals and replacements, and maintain adequate depreciation reserve. (Sec. 10c.)

POWER FOR NAVIGATION FACILITIES.

6. The licensee is required to provide, free of cost, power for operation of all navigation facilities (sec. 11 c), and authority is reserved in the Government at all times to prescribe regulations in the interest of navigation, including control of the pool level and installment of necessary lights and signals. (Sec. 18.)

REGULATION OF RATES, SERVICE, AND SECURITY ISSUES.

7. A licensee which is a public utility corporation must abide by such reasonable regulation regarding the services rendered its customers and its rates and charges of payment therefor as may be prescribed by the State; and if there be no laws of the State, regulations, rates, services, or security issues, then the Federal Power Commission exercises such regulations (sec. 19), and if the power enter into interstate commerce and the States can not agree, then the Federal Power Commission makes such regulations. (Sec. 20.)

8. All power sold in public service entering into interstate commerce must be "reasonable, nondiscriminatory, and just to the customers, and all reasonable discrimination and unjust rates or service are hereby prohibited and declared unlawful." (Sec. 20.)

Even where the licensee sells to another company for resale to the public, the act undertakes to regulate rates, service, and security issues of that purchaser from the licensee in the event there is no local regulation. (Sec. 19.)

AMORTIZATION PAYMENTS.

9. After 20 years of operation amortization reserves are required out of surplus earned thereafter; if any in excess of a specified reasonable rate of return upon the actual, legitimate investment to be held until the termination of the license or applied, in the discretion of the power commission, in the reduction of the net investment to the licensee. (Sec. 10 d.)

HEADWATER IMPROVEMENTS.

10. The licensee is required to make equitable contribution for the benefits accruing to it from headwater improvements, either by storage reservoirs or otherwise, whether done by other licensees or by the Government. (Sec. 10 f.)

COMBINATIONS PROHIBITED.

11. Combinations, agreements, or understandings, expressed or implied, to limit the output of electrical energy, to restrain trade, or to fix, maintain, or increase prices for electrical energy or service are prohibited. (Sec. 10 h.)

USE FOR NATIONAL DEFENSE.

12. The right is expressly reserved in the United States at any time, in the opinion of the President, to take over the project when the safety of the United States demands, for "manufacturing nitrates, explosives, or munitions of war, or for any other purpose involving the safety of the United States, involving a liability only for just and fair compensation for use of the property taken, to be determined by the power commission upon a basis of a reasonable profit to the licensee in peace time, plus the cost of restoring the property to as good condition as when taken, less a reasonable value for improvements made by the United States, that are serviceable and valuable to the licensee."

THE FEDERAL WATER POWER ACT—AN ESTABLISHED POLICY OF CONGRESS.

The majority report attempts to argue (p. 54) against the public policy of the Federal water power act itself. The Federal water power act represents the matured policy of Congress after deliberations extending over a long period of years. We do not believe that the result of that deliberation can be properly destroyed for the purpose of making an unlimited and unregulated grant to Mr. Ford. In the interest of accuracy, however, it is proper to quote section 14 of the Federal water power act:

Sec. 14. That upon not less than two years' notice in writing from the commission the United States shall have the right upon or after the expiration of any license to take over and thereafter to maintain and operate any project or projects as defined in section 3 hereof, and covered in whole or in part by the license, or the right to take over upon mutual agreement with the licensee all property owned and held by the licensee then valuable and serviceable in the development, transmission, or distribution of power and which is then dependent for its usefulness upon the continuance of the license, together with any lock or locks or other aids to navigation constructed at the expense of the licensee, upon the condition that before taking possession it shall pay the net investment of the licensee in the project or projects taken, not to exceed the fair value of the property taken, plus such reasonable damages, if any, to the property of the licensee valuable, serviceable, and dependent as above set forth but not taken, as may be caused by the severance therefrom of property taken, and shall assume all contracts entered into by the licensee with the approval of the commission. The net investment of the licensee in the project or projects so taken and the amount of such severance damages, if any, shall be determined by agreement between the commission and the licensee, and in case they can not agree, by proceedings in equity instituted by the United States in the district court within which any such property may be located: *Provided*, That such net investment shall not include or be affected by the value of any lands, rights of way, or other property of the United States licensed by the commission under this act, by the licensee, or by good will, going value, or prospective revenues: *Provided further*, That the values allowed for water rights, rights of way, lands, or interest in lands shall not be in excess of the actual reasonable cost thereof at the time of acquisition by the licensee: *Provided*, That the right of the United States or any State or municipality to take over, maintain, and operate any project licensed under this act at any time by condemnation proceedings upon payment of just compensation is hereby expressly reserved.

A glance at the foregoing quotation shows the absurdity of the argument inserted in the majority report relating to severance damages. No severance damages could, of course, be recovered except by the licensee and then only such reasonable damages as would be incurred by such licensee by reason of severance of prop-

erty of licensee taken by the Government from other property of the licensee not taken by the Government.

Under the Ford offer the United States will give to the company a warranty deed to all existing nitrate properties, originally built or acquired at a cost to the United States of approximately \$80,000,000, and will give a lease for the hydroproperties. The bill H. R. 518, as reported with amendments on February 2, makes no disposition (except in the title of the bill) of the new steam plant to be built on the Warrior River. This plant is not included among the properties to be sold, as specifically described in section 11 of the bill, or among the properties to be leased, as described in sections 3 and 7 of the bill. There appears to be, therefore, no authority in the bill for the disposition of this plant after completion. With the exception of the obligation "to maintain nitrate plant No. 2 in its present state of readiness" for use "in time of war," the company may dispose of any part of the properties conveyed to it and retain the proceeds for its own use. At the end of the lease period the properties conveyed are freed from any claim of the United States, and the company thereafter may hold and use them without any restriction or obligation other than it may voluntarily assume in case it desires to secure a renewal of lease of the hydroplants. If the United States should wish to engage itself in nitrate production, it would be obliged either to construct new plants, or to buy back at their then value the properties which it had originally sold for less than \$1,500,000.

The multiplicity of damage suits and excessive damages suggested in the majority report is, therefore, a mere figment of imagination.

NO REGULATION IN ALABAMA.

In the event of acceptance of the Ford proposal, his company would not be regulated as to rates, service, or issuance of securities by the Federal Government or the State public service commission.

Muscel Shoals being located in Alabama, it would necessarily follow that the question as to whether or not the company proposed to be organized by Mr. Ford would be subject to State regulation would be entirely under the provisions of Alabama public service act of 1920, which contains the following section which would operate as a limitation on the provisions of that law;

Sec. 5. Limitations: None of the provisions of this act shall apply to the generation, transmission, or distribution of electricity, to the manufacture or distribution of electricity, to the manufacture or distribution of gas, to the furnishing or distribution of water, or to the production, delivery, or furnishing of steam for heat or power by a producer who is not otherwise a utility, for the sole use of such producer, or for the use of tenants of such producer, nor shall they apply to any person not otherwise a utility who manufactures and supplies such products to a utility for its use or distribution without participation by such manufacturer in such use or distribution. When a person is engaged in business, a portion of which business is private and a portion of which is the business of a utility, the authority, powers, and jurisdiction of the commission conferred upon it by law shall not be deemed to apply to and shall not be exercised with respect to that portion of said business which is a private business.

It will be noted that the provisions of this act do not apply to the manufacture of electricity by a producer for his own use, or his tenants, nor to a person not otherwise a utility who manufactures and supplies such products to a utility for its use and distribution.

The Alabama law stops far short of the Federal act as regards regulation of a producer where the energy is sold to another for distribution. That the company to be organized by Mr. Ford can avoid coming under the provisions of the Alabama public service law is evident. He would not be regulated (a) if he produced power for his own consumption, (b) supplied it to his tenants, (c) sells to a subsidiary company for the purpose of sale and distribution. The subsidiary company as a utility would be subject to the public service act, but the producing company from whom the subsidiary would purchase would be wholly unregulated.

Mr. Ford not only carefully but stubbornly refuses to accept this magnificent gift at the hands of the Government if it carries with it subjection to the water-power policy of the Government as declared in the Federal water-power act. A careful consideration of sections 19 and 20 of that act are enlightening as to Mr. Ford's reasons for his position. The sections referred to are as follows:

SEC. 19. That as a condition of the license, every licensee hereunder which is a public service corporation, or a person, association, or corporation owning or operating any project and developing, transmitting, or distributing power for sale or use in public service, shall abide by such reasonable regulations of the services to be rendered to customers or consumers of power, and of rates and charges of payment therefor, as may from time to time be prescribed by a duly constituted agency of the State in which the service is rendered or the rate charged. That in case of the development, transmission, or distribution, or use in public service of power by any licensee hereunder or by its customers engaged in public service within a State which has not authorized and empowered a commission or other agency or agencies within said State to regulate and control the service, or the rates and charges therefor, or the amount or character of securities to be issued by any of said parties, it is agreed as a condition of said license that jurisdiction is hereby conferred upon the commission, upon complaint of any person aggrieved or upon its own initiative, to exercise such regulation and control until such time as the State shall have provided a commission or other authority for such regulation and control: *Provided*, That the jurisdiction of the commission shall cease and determine as to each specific matter of regulation and control prescribed in this section as soon as the State shall have provided a commission or other authority for the regulation and control of that specific matter.

SEC. 20. That when said power or any part thereof shall enter into interstate or foreign commerce the rates charged and the service rendered by any such licensee, or by any subsidiary corporation, the stock of which is owned or controlled directly or indirectly by such licensee, or by any person, corporation, or association purchasing power from the licensee for sale and distribution or use in public service, shall be reasonable nondiscriminatory, and just to the customer, and all unreasonable discriminatory and unjust rates of services are hereby prohibited and declared unlawful; and whenever any of the States directly concerned has not provided a commission or other authority to enforce the requirements of this section within such State or to regulate and control the amount and character of securities to be issued by any such parties or such States are unable to agree through their properly constituted authorities on the services to be rendered, or on the rates or charges of payment therefor, or on the amount or character of securities to be issued by any of said parties, jurisdiction is hereby conferred upon the commission, upon complaint of any person aggrieved, upon the request of any State concerned, or upon its own initiative, to enforce the provisions of this section, to regulate and control so much of the services rendered, and of the rates and charges of payment therefor as constitute interstate or foreign commerce, and to regulate the issuance of securities by the parties included within this section, and securities issued by the licensee subject to such regulations shall be allowed only for the bona fide purpose of financing and conducting the business of such licensee.

The administration of the provisions of this section, so far as applicable, shall be according to the procedure and practice of railroad companies as provided in the act to regulate commerce, approved February 4, 1887, as amended, and that the parties subject to such regulations shall have the same rights of hearings, defense, and review as said companies in such cases.

In any valuation of the property of the licensee hereunder for purposes of rate making, no value shall be claimed by the licensee or allowed by the commission for any project or projects under license in excess of the value or values prescribed in section 14 hereof for the purpose of purchase by the United States, but there shall be included the cost to such licensee of the construction of the lock or locks or other aids of navigation and all other capital expenditures required by the United States, and no value shall be claimed or allowed for the rights granted by the commission or by this act.

A FAVORITE OR A PHILANTHROPIST.

Claimants for special privileges from the government have appeared and clamored wherever governments have existed. The desire of the rich and powerful to become more rich and powerful from government favor is as old as history. They seldom come without persuasive arguments. They always pretend, and sometimes intend, beneficences. They will contribute to national defense; they will lead the nation to higher economic levels; they will lead upward and onward and shed light. But it is a characteristic of those who ask for government favors that they will do none of these things except at government expense. This is the distinction between a favorite and a philanthropist.

In the present instance the flattering picture is presented of benefit to farmers of the country. This is persuasive. Agriculture is entitled to the sympathy, encouragement, and support of all governments, since all peoples derive their very daily existence from the fruit of the farmers' toil. Mr. Ford suggests, though he does not promise, that he will provide cheap fertilizer for the farmers. This is a worthy object. Fertilizer is a constant necessity to the farmers in many sections.

Fertilizer is not cheap. If means can be devised for increasing the production and lowering the cost, very much will be gained thereby. We believe that the Muscle Shoals property can be so utilized as to insure the production of more and better fertilizer materials and at lower costs. We believe, moreover, that this can and should be done without favor, subsidy, or Government grant of special privilege to any individuals or group of individuals, corporations, or parties whatsoever.

Mr. Ford, or his alleged agents, naturally do not ask for the gifts we have described without earnest and persuasive arguments. They never do. High reasons have been advanced why the Government should bestow its bounty. The pretext here is that Mr. Ford is to make cheap fertilizer at Muscle Shoals.

As this comprises all there is of supposed public advantages in the proposed transaction it is worthy of close examination. Mr. Ford has never made himself completely clear on the subject of fertilizer. His "offer" is far more definite and particular when describing the benefits Mr. Ford is to secure than in describing those which he is to bestow. It must be admitted by any candid observer that in his original communication to the Secretary of War, Mr. Ford was quite clear as to what he wanted himself, but extremely vague as to what he proposed to do in return. When the Ford offer appeared two and a half years ago it contained no evidence that Mr. Ford had made any examination whatever of the subject of fertilizer production, and in all the discussion which has followed throughout

the consideration of his offer by the Secretary of War and by Congress he has shown no knowledge and little interest in the methods by which cheaper fertilizers could be actually produced.

His offer in its original form was to operate nitrate plant No. 2 to its capacity in the production of nitrogen and other fertilizer compounds at a profit of not exceeding 8 per cent of the cost of production. Nitrogen is not a fertilizer, and under that offer not a pound of fertilizer need ever have been made available for the farmers of the United States.

It is true that under pressure his proposal in regard to fertilizer has been altered and perhaps improved to meet exigencies resulting from its original unsatisfactory character. In our opinion the changes have been reluctantly made with the idea of enhancing the apparent attractiveness of the offer rather than with the intention of entering into a valid and binding guaranty for the production of fertilizers at Muscle Shoals by modern available methods and at lowering costs.

At all times Mr. Ford has persistently refused to discuss the matter with the committee. In the course of the hearings just concluded the committee requested him, if he found it inconvenient to appear personally, to send accredited representatives who could discuss it on his behalf. This he peremptorily refused, meanwhile intimating to the committee that it was wasting its time. This was interesting. Claimants for Government favor are frequently more patient.

THE CORRESPONDENCE WITH MR. FORD.

The authors of the majority report have unintentionally inserted certain inaccuracies, which, if not corrected, might lead to serious misapprehensions on the part of Members of the House.

On page 14 of the majority report the following statement appears:

Since no direct word has been received from Mr. Henry Ford during the consideration of this legislation in this session, the question arose whether his offer of May 31, 1922, still stood. The chairman of the Military Affairs Committee, Hon. Julius Kahn, telegraphed Mr. Ford. Mr. Ford replied he still stood by his offer of May 31, 1922, and that the provisions of the McKenzie bill with the so-called Madden amendments would be satisfactory to him.

It would have been better to quote the entire correspondence between the chairman of the Military Affairs Committee and Mr. Ford exchanged during the hearings on the pending bill. The telegrams are as follows:

DETROIT, MICH., *January 18, 1924.*

Congressman JULIUS KAHN,
House of Representatives:

Our offer for Muscle Shoals still stands. The McKenzie bill, with the Madden amendment as printed in the Madden bill, is satisfactory, with the following suggested amendments of section 19, page 17, beginning at line 5 of the Madden bill: "A suitable site for a steam-power plant, to be located at or near Lock and Dam No. 17, Black Warrior River, Ala., or upon a site to be mutually agreed upon by the Government and Mr. Henry Ford, together with a strip of land 100 feet wide to serve as a right of way for transmission and transportation purposes between Dam No. 17, Black Warrior River, or a site to be agreed upon by the Government and Mr. Henry Ford, and nitrate plant No. 2, Muscle Shoals, Ala., with connection to Waco Quarry near Russellville, Ala."; remainder of section as appears in bill.

HENRY FORD.

WASHINGTON, D. C., January 26, 1924.

HENRY FORD,
Detroit, Mich.:

Some members of the Military Affairs Committee want to ask you some questions. Can you be present? If not, would you be willing to indicate who you will empower to speak for you? Kindly answer as soon as possible. The committee feels that the hearings should close on Tuesday at the very latest, but want to be absolutely fair in giving you and other bidders full opportunity to explain your offers.

JULIUS KAHN.

DETROIT, MICH., January 28, 1924.

Congressman JULIUS KAHN,
House of Representatives:

In reply to your telegram that some members of the Military Affairs Committee desired to ask me some questions and suggesting that I appear before your committee or send a representative empowered to speak for me, and especially in reply to your own statement that you wished to give us "a full opportunity to explain your offer," I respectfully submit to your consideration the following:

Invitations for bids for Muscle Shoals were asked for by the Secretary of War in April, 1922. Your committee has therefore had our proposal before it for practically two years. Mr. Mayo, our representative, has appeared before you on numerous occasions, and every phase of our offer has been fully inquired into and explained. Your committee has therefore reported to Congress two bills providing for acceptance of our offer. I know of nothing we can add that would be of help to you.

Further hearings would only serve to delay action and unnecessarily consume the time of a busy and important committee of Congress already in possession of all facts.

HENRY FORD.

The modification of the Madden amendment requested by Mr. Ford in his telegram was not in the wisdom of the committee thought desirable and was not inserted in the bill. It follows that the lack of information as to Mr. Ford's attitude referred to in the quoted paragraph still exists. No one is in a position to know from any statement of Mr. Ford, or any accredited representative, whether he would accept the properties on the terms offered him in the pending bill. Mr. Ford's telegram was searched in vain for anything to support the assertion "that the provisions of the McKenzie bill with the so-called Madden amendment would be satisfactory to him."

Another unintentional inaccuracy which is possible of much more serious import is to be found on page 56 of the majority report. There, discussing the question of personal liability of Mr. Ford and his estate for due performance of the contract, the following quotation from Mr. Ford's offer is made:

Upon acceptance, the promises, undertakings, and obligations shall be binding upon the United States, and jointly and severally upon the undersigned, his heirs, representatives, and the company, its successors and assigns. (Sec. 20, Ford offer.)

The majority report then contains the following paragraph:

The Acting Judge Advocate General, John A. Hull, testified regarding these provisions (House hearings, 1922, pp. 196 and 190):

"A careful study of the language convinces me that Mr. Ford is bound as well as the company and is not discharged the minute the company is organized and undertakes these matters. * * * Mr. Ford obligates his estate and the company when organized."

In this manner the authors of the majority report have inadvertently made it appear that the Acting Judge Advocate General made this statement as applying to the so-called personal liability clause in the pending bill. The facts are (1) that Judge Hull gave his testimony fully two years ago when Acting Judge Advocate General of the Army, and (2) no such language as that quoted appears in the pending bill. The so-called liability clause of the pending bill is found in section 23 thereof, as follows:

All of the contracts, leases, deeds, transfers, and conveyances necessary to effectuate the acceptance of said offer shall be binding upon the United States, and jointly and severally on Henry Ford, his heirs, representatives, and assigns, and the company to be incorporated by him, its successors, and assigns.

This is entirely different language and has no such effect as the language upon which Judge Hull was examined, and no opinion upon the language of the pending bill in this report has ever been given by Judge Hull.

The only contract undertaken by Henry Ford is to organize a company with a capital stock of \$10,000,000 and cause it to execute all necessary instruments. That is all that is necessary on his part "to effectuate acceptance of said offer," and, therefore, the only obligation upon him.

PROGRESS NOT DUE TO MR. FORD.

Nobody denies that Mr. Ford demands the divesture by the Government of its ownership of its nitrate plants. It is inconceivable that this necessity of national defense, vital to the Nation's safety, should pass into private hands.

It is wise and proper to turn the work at Muscle Shoals in time of peace to the production of fertilizer, if costs can be reduced in such a manner as to benefit the farmers. This undoubtedly was the intention of Congress when it authorized the beginning of the Muscle Shoals enterprises. Moreover, the evidence accumulates that it can be done. It is fair to say that this latter fact is more clear now than it was two years ago. But it is fair also and significant to remark that Mr. Ford has not contributed to such additional enlightenment as has taken place. His offer still contemplates the making of fertilizer by the operation of nitrate plant No. 2. If he has other plans he has not indicated what they are. If he has sought the aid of modern science and modern expert experience the record does not disclose it. There is in the record of the hearings much that supports the conclusion that the operation of nitrate plant No. 2 in fertilizer production would be of no substantial benefit to the farmers of the United States. The costs would be higher than the costs of equivalent nitrogen from other and more modern sources. The product could not be used by the farmer in any substantial amount.

This is substantially the testimony of the experts who have appeared before the committee. The cyanamid process of nitrogen fixation (the process of nitrate plant No. 2), like the older arc process, is thought to be obsolete so far as fertilizer production is concerned.

ALLEGED GUARANTY AND SPECIAL PRIVILEGES.

It is generally conceded by the champions of the Ford offer that the outstanding element therein on which rests their argument for the superiority of the proposal over all others is Mr. Ford's definite guaranty, backed by his whole private resources, as they understand it, to manufacture at least 40,000 tons of fixed nitrogen a year at Muscle Shoals, irrespective of whether or not he can dispose of it without incurring a loss. This alleged guaranty on his part, it is contended, fully justifies the sale to him in fee simple for approximately one and one-half million dollars of properties which cost the Government \$80,000,000, and whose mere absolute scrap value has been appraised at over \$11,000,000, together with a lease of power rights to the whole output of this largest of all our national water-power developments under terms that Congress has steadfastly and after the most careful study of the general question refused to grant to anyone else on any other water power within the Nation's control. The value of merely these special water-power privileges over and above what the same might be worth to any individual or corporation, taking the same properties under the regular terms and procedure of the Federal water-power act, is estimated by Mr. O. C. Merrill, secretary of the Federal Power Commission, as approximately \$200,000,000.

This enormous proposed bonus to Mr. Ford is to be paid, it must be remembered, not for any definite guaranty of cost reduction, but simply for a guaranty of minimum capacity of operation, irrespective of what its utility or efficiency may prove to be as an economic measure or in furnishing relief to the farmer in the matter of fertilizer costs. Every other essential element of the Ford offer is paralleled in other offers already pending, and the proponents of these have further signified their willingness (in striking contrast to the attitude of Mr. Ford) to cheerfully consider modification desired along any particular line by the Government, and do all in their power to readjust the terms of their offer to meet the same.

FORD'S FERTILIZER GUARANTY NOT BINDING.

We are not convinced that if given the special privileges he demands Mr. Ford could be compelled continuously to produce fertilizers at Muscle Shoals. The language of section 14 of the committee bill is, to say the least, peculiar, and it has a peculiar history. It is certain that the original offer contained no binding language regarding fertilizer production. This was the opinion of the Military Affairs Committee of the last preceding Congress, and its members sought energetically to strengthen the commitment. They were apparently successful, but with the new wording of the section, qualifying language not in the original proposal appeared. It is not unfair to observe that the original proposal did not require such qualifying phrases because not in itself binding. Neither Mr. Ford nor any accredited representative has interpreted the qualifying language for the record, and we are justified in finding our own interpretation in the light of the attendant circumstances. It is in the record of the former hearings that Mr. Ford stated to the Secretary of War that if he could not make fertilizers profitably he intended to "quit." If

this plan is, and the record discloses no other, to make fertilizers by operating nitrate plant No. 2, he can not do it profitably unless the evidence given by experts of learning and experience who did testify is wholly misleading. The qualifying phrases referred to would, in our opinion, furnish the required loophole for Mr. Ford. He would "quit," as he has stated. He could not be compelled to resume. But he would retain the properties and advantages bestowed upon him by the Government.

SCIENTIFIC RESEARCH AND MODERN PROCESSES.

The principal plant foods, the necessary ingredient of fertilizers, are nitrogen, phosphoric acid, and potash. Nitrogen is basic in fertilizers. It is also the basic ingredient of explosives. A nation devoid of nitrogen supply would be defenseless in time of war. There are several sources of supply. Nitrogen in the form of nitrate of soda is imported from Chile, but this is a source not to be depended upon, since obviously it could be entirely cut off in time of war and is presumably subject to ultimate exhaustion in any case. Another source is the by-product coke ovens of the great steel and other metal industries. This source, though substantial, is limited by the extent of the manufacture of the main product of these industries. It is dependable, but limited.

Science for many years has energetically sought a means of taking the abundant nitrogen from the air and making it available for the uses of mankind. Many processes have been developed. In Norway, where extremely cheap hydroelectric power was available, a method known as the arc process was developed as much as 15 or 20 years ago, for the fixation of atmospheric nitrogen. This process, successful in Norway, has elsewhere been found practically unavailable because Norway's water powers are unique. On account of physical characteristics of great advantage, they have been developed at cost far below anything possible in the United States.

The cyanamid process was next developed from the genius of a German inventor, Doctor Caro. It is a secure and certain source of nitrogen supply where cost is not an essential factor. It is the system employed in the great nitrate works known as plant No. 2 at Muscle Shoals. For the production of explosives in war time it is satisfactory and dependable. It was thought for a time that cyanamid could be successfully produced as a fertilizer. Experience has extinguished that hope. Cyanamid is used to some extent as an ingredient of commercial fertilizers, but its use alone as a nitrogenous fertilizer has practically been abandoned.

COSTS LOWERED BY HYDROELECTRIC POWER.

In Germany during the war nitrogen fixation from the atmosphere developed rapidly. The Chilean supply of nitrogen was, of course, cut off. A process invented by Doctor Haber supplied Germany with munitions through the conflict. Since the armistice this source of supply has been vastly expanded in Germany and an enormous tonnage of sulphate of ammonia produced by the Haber process of nitrogen fixation is now being supplied to German farmers. Power

is not used to any considerable extent in this process as practiced in Germany. The Haber process is also being utilized in the United States at a plant in Syracuse, N. Y., producing approximately 20 tons per day of ammonia. There is a smaller plant at Niagara Falls using a process partly developed at the nitrogen research laboratories of the Government under Doctor Cottrell. Power is not used extensively with any of these, but all these processes can be combined with the use of hydroelectric power to great advantage, and by this means the cost of the product can be very substantially lowered. Other processes have been developed and are in commercial operation, notably the Casale process, the invention of a distinguished Italian; the Claude process, invented by a Frenchman; and the American process, already alluded to, which has been developed by Dr. A. T. Larson at the research laboratories of the United States under Doctor Cottrell. The result is that it is now known that by taking advantage of modern scientific accomplishments and adding the benefit of hydroelectric power, it is possible to make atmospheric nitrogen available for the use of agriculture at low costs.

The production of phosphoric acid, another essential food plant, has also been the object of scientific research and development. Further advances are reasonably to be expected, but it is known that by using the modern methods of nitrogen fixation and combining the product with phosphoric acid produced by methods known to be commercially available, a fertilizer product of high fertilizing value can be made where hydroelectric power at low cost is available and sold to the farmers of the country at a substantial reduction below the price they now pay for equivalent plant food. Thus it has become certain that fertilizer production can be carried on at Muscle Shoals with profit, at the same time substantially reducing the cost of fertilizer to the farmer.

NOT NECESSARY TO SUBSIDIZE MR. FORD.

Under these circumstances we see no reason, even if higher consideration of public policy did not prohibit it, for inducing Mr. Ford with heavy subsidy in the form of power and property to engage in that profitable enterprise. The opportunity to make fertilizer at Muscle Shoals has been created primarily by the Government through the construction of its war-time works and secondarily by the genius of the men of science who have developed available processes. Mr. Ford has had nothing to do with either of these factors.

If the foregoing is a correct analysis, as we believe it to be, it follows that Mr. Ford ought not to be accorded special privileges and subsidy for any purpose whatsoever; that it is unnecessary, in order to secure cheaper fertilizer production, to embark on the tortuous and dangerous course of Government largess even if higher principles could be waived, and that even if higher principles were waived and the largess bestowed, there is no certainty that the promised benefits would follow.

Fortunately, this conclusion is not the end of the matter. It is not as clear to us as to Mr. Ford that the committee and Congress have been wasting their time in the long consideration given to the problem of Muscle Shoals.

RESPONSIBLE PARTIES HAVE COME FORWARD.

New developments of a significant character have taken place recently. Responsible parties have come forward who are willing and able to pay the Government a reasonable return upon its entire investment in the power development at Muscle Shoals and also to engage in the production of fertilizers and their sale at reasonable profit. The proposals are fully set forth in the record of the recent hearings.

We do not recommend the acceptance of any of the proposals referred to. They are better than the offer of Mr. Ford. If it was ever worthy of consideration that Muscle Shoals should be given to Henry Ford for the sole and only reason that no other bidder had made a comprehensive offer, that consideration has forever been obliterated.

The record now discloses that if bargains are to be made a far better bargain can be made with other parties than anything Mr. Ford offers. We do not think, however, that it is proper to consider this matter from the point of view of bargaining at all. We believe that a Government policy should be developed and adhered to, of which all bidders must take notice and to which they must conform. Much of the time and trouble of the committee has been expended in the attempt of the majority to conform public policy to the absent and unresponsive Mr. Ford. That policy should begin with the intention of Congress as disclosed in section 124 of the national defense act.

The properties at Muscle Shoals are required for national defense. They are a part of the present equipment of the military affairs of the Nation. They should not for one moment pass into the ownership of any private parties whatsoever. While it is true that all property of all citizens can be taken by the Government when necessary for national defense, this furnishes no excuse for deeding away vital factors of preparedness. The same argument would support the sale of our arsenals, our war supplies of all kinds. To allow the properties to be used under adequate supervision and without passage of title is one thing; to sell them is a totally different matter. It should not be done.

USE OF POWER IN THE SOUTH.

A large amount of evidence was brought before the committee to show the widespread demand in the South for hydroelectric power and the concern which is felt in that section lest the Muscle Shoals power be entirely withdrawn from public service.

Taking the Ford obligation at its full value, to make 40,000 tons of fixed nitrogen per annum this requires less than 100,000 horsepower, yet his offer requires the Government to build power plants which, with the steam plants, will give him over 850,000 horsepower, or 750,000 horsepower more than is necessary to carry out his fertilizer obligation. It is this power which the public in many sections of the Southeastern States are demanding shall be distributed for general use.

Due to the electric transmission lines which are connected in the Southeastern States, it is now possible, according to the testimony,

for the Muscle Shoals power to reach the public at points over 600 miles from Muscle Shoals.

It was shown, however, before the committee that under the Ford proposal he would in 1926, at an expense of \$500,000, have available in excess of 600,000,000 kilowatt hours of energy at a cost of less than 1 mill per kilowatt hour, and in 1936, when Dam No. 3 will have been completed, he will obtain, at an expense of about \$3,300,000, a total of 1,700,000,000 kilowatt hours of primary energy at a cost of 1.9 mills per kilowatt hour, leaving a large amount of secondary power not utilized. It was further shown that as storage reservoirs are built in the headwaters of the Tennessee River without expense to Mr. Ford and without any obligation on his part to pay for same, his price per kilowatt hour for this electricity will be steadily reduced, although his annual payments will remain the same. In other words, because Mr. Ford has refused to come under the Federal water power act, he assumes no obligation as required by that act to make equitable contribution to the Government or others who may construct storage reservoirs at the headwaters of the Tennessee River, notwithstanding he will greatly profit thereby.

It was further brought out before the committee that industrial users of power in the Southeast in the main purchase their power from power companies at rates from 5 mills to 1 cent, depending upon the amount used, and that upon the average the industrial users of the South are paying now \$18,000,000 for an equal amount of power that Mr. Ford will secure from these plants in 1936 at a cost of \$3,300,000. In other words, without regulation of any kind, Mr. Ford would then obtain for his business use an advantage over other users—municipalities, cotton mills, mines, etc.—to the extent of \$15,000,000 per year in his actual power costs. On the other hand, this power, if distributed to the public, would tend to reduce the price of power to the public over a great part of the South, and in addition would enable vast areas, such as Mississippi, western Tennessee, Louisiana, and Florida to obtain hydroelectric power from this Government development when otherwise they will never have any opportunity to do so.

A grave question is then presented to the Congress whether it should give so tremendous an advantage to one individual over all other industrial enterprises and users of electricity; especially when it is shown that the interest payments to the Government are far less than can be obtained from others, and do not return the Government even 4 per cent on its tremendous investment in the plants. The result is to give what is in effect a large subsidy to one individual for his private use at the expense of the vast number of taxpayers of the United States.

THE GORGAS STEAM PLANT.

Section 19 of the bill reported by the committee is intended to restore to the Muscle Shoals properties, for which Mr. Ford will pay \$5,000,000, other properties to be acquired in substitution for Gorgas steam plant and transmission lines sold.

These properties were sold by the United States since the adjournment of the last Congress for the sum of \$3,472,487.25 under the authority of an opinion by the Attorney General that the Secretary

of War was under legal obligation to sell to the Alabama Power Co. or else within a certain time remove the properties from the lands of the power company. Copy of the letter from the Secretary of War to the Attorney General and his opinion are hereto attached, marked Exhibit A. (See opinion at end of this minority views.)

Imagination can not compass the advantages to the fortunate legatee of this gigantic gift from a great Government. If it shall be made, it will be unparalleled in our history. The request is to use additional Government money running to \$50,000,000 at a rate not half what private industry pays in the investment world, indisputable rights to nearly 1,000,000 horsepower for private, unrestricted, unregulated use, though millions of users may clamor for it; plant facilities, towns, streets, with all improvements, bought for a mere fraction of their cost and many millions below their ascertained value at the junk heap. Nor can imagination picture or foresee the full effect of what this will mean to the Nation over the term of 100 years and more. Can it be anything less than a sinister menace, a grave danger, an unmistakably false step wholly unjustified, a grievous wrong to the future generations that will have to live under it and abide by what we here do?

BARGAINS AND ECONOMIC FORCES.

We can not foresee, but we can find some guidance. Let us suppose that a little over 100 years ago the early Congress of the United States had said to Benjamin Franklin, an outstanding genius of his time: "We wish to make you a proposal. We are intensely interested in the development of your theory of electrical energy; we realize that its development is in its infancy; we realize that a development of this unknown force will mean much to our national program of economic expansion and defense in time of war. In your State of Pennsylvania there is much public land which contains coal known as anthracite; the coal is practically valueless, but it may have possibilities of development. If you will guarantee to develop a unit of electrical energy which will produce 50 horsepower and deliver this continuously for 100 years we will turn over to you these coal lands in Pennsylvania. The amount of electrical power we are asking you for is an incomprehensibly large amount. We feel that it can be developed, that you are the only man that can develop it, and we feel that with the present needs of this country and future needs in view we are making a splendid bargain."

What a bargain that would have been! And yet, in the light of the time, that would have been a much more defensible policy than the acceptance of the Ford offer. With the development in organic chemistry which has taken place in the five years since the end of the war and the number of processes for fixation of nitrogen which are rapidly developing, it is surely comprehensible that long before the 100-year period proposed in Mr. Ford's offer shall have elapsed, or even 25, the fixation of nitrogen will develop to a point making the amount of nitrates contemplated in any of the offers now before Congress an equally absurd recompense for the great economic value of the power which it is proposed to turn over to Mr. Ford.

We concur in the conclusions of the majority, expressed on page 61, that at Muscle Shoals there are several fields of usefulness to

which these properties can and should be applied, and that the original purpose in the mind of Congress authorizing their construction must not be overlooked. First in importance from a national standpoint is the production of nitrate for national defense, and second, its application to fertilizer production in time of peace. We do not concur in the conclusion of the majority that the bill reported binds Mr. Ford to obligations with respect to these purposes of greater advantage than can otherwise be secured. It is apparent from the testimony submitted to the committee and from general knowledge of recent development in the art of nitrogen fixation that without unnecessary burdens on the Government and without parting title to valuable properties it can find responsible citizens who are willing to assume obligations with respect to the production of nitrates for preparedness and for fertilizer of equal benefit, if not to greater advantage to the Government and the public, than that offered by Mr. Ford.

AMORTIZATION—MORE FRENZIED FINANCE.

The poverty of the financial return to the Government offered by Mr. Ford in comparison with the richness of the benefits he demands has led his supporters and apologists to strange arithmetical gymnastics. The majority report, p. 59, presents a supposed comparison between the Ford offer and the offer of the power companies, in reality a labored effort to show a more favorable balance resulting to the Government from the former. To accomplish this the payments of the power companies over a term of 50 years are compared with Ford payments over a period of 100 years. The glaring unfairness of this is too obvious for extended comment. But this is only the beginning. On the Ford side of the balance sheet four items with the enormous total of \$99,071,935 are credited as payments by Mr. Ford which Mr. Ford is not required to make by his proposal, does not undertake to make, never will make, and which have no place whatever in such an estimate as the table purports to offer.

These four items, which belong only in the realm of frenzied finance, are as follows:

Forty-nine million seventy-one thousand nine hundred and thirty five dollars is credited as to be paid into an amortization reserve. The truth is Mr. Ford proposes to pay into this amortization fund less than \$50,000 per annum; to be exact, during the 100-year period, \$4,368,378. The other \$45,000,000 of this credit of \$49,000,000 the Government, it is blandly suggested, can secure for itself by investing the \$50,000 annual payments shrewdly as they come in. If this system of making payment should be adopted it would possibly gain popularity with debtors, or at least with debtors wishing to avoid their liabilities, but creditors will be increasingly cold the more they examine it. Can it be possible that anyone seriously expects the Government to be so gullible?

The second item is a credit to Mr. Ford's alleged payments of \$20,000,000 in the form of interest for 100 years on the \$5,000,000 he is to pay the Government. Of course, there is no such interest, no such money, no such agreement. Mr. Ford pays \$5,000,000 to the Government and takes property; in return he gets fee titles. The transaction is finished, concluded, closed. Mr. Ford has the property,

the Government has the money, or would have if the Ford offer did not elsewhere provide for taking it back again. Mr. Ford pays no interest, the Government gets no interest, and yet Mr. Ford is credited with an alleged payment of \$20,000,000 to the Government. It is impossible adequately to characterize the folly of such figuring.

The other two items of \$10,000,000 and \$20,000,000, respectively, are estimates of the cost of maintenance and replacements in the nitrate plants. These amounts are nothing more than estimates and they do not represent payments to the Government at all. They have no place in the tables. The Government will never receive one dollar for this alleged credit of \$30,000,000. In all, as stated, \$99,000,000 are credited as payments by Mr. Ford in items from which the Government will actually receive only the amortization payments totaling \$4,368,378.

The thought of the minority submitting this report is that the Ford offer should be rejected or amended so as to make it compare favorably with other bids now on hand, first, by placing the power projects under the control of the Federal water power act to insure distribution of power; second, by leasing the projects for 50 years on terms which will insure a net annual return as great as other bids submitted; third, by leasing the nitrate plants for a nominal rental as long as he will guarantee their use for the manufacture of fertilizer or fertilizer compounds.

If this is not done, then consideration and examination should be made of other offers now on hand, or to be received, and acceptance made of whichever one makes the best return to the Government, assures the production of cheap fertilizer for the farmer, and provides for the maintenance of the nitrate plants as a standby in case of war, in accordance with section 124 of the national defense act.

JOHN M. MORIN.

HARRY E. HULL.

HARRY C. RANSLEY.

JOHN PHILIP HILL.

LOUIS A. FROTHINGHAM.

J. MAYHEW WAINWRIGHT.

Concurring in the conclusions of my colleagues that the Muscle Shoals properties should not be transferred to Mr. Henry Ford on the terms proposed, and that there are several other offers before the committee which offer greater advantages to the Government and the people, I have signed the foregoing minority report, but I entertain grave doubts as to the wisdom or expediency of in any event relinquishing the absolute control of this great natural resource of water power to any private interest upon any terms. Also I question whether Congress can ever arrive at a wise or satisfactory conclusion until the whole subject and all offers that have been or still can be adduced have been analyzed, considered, and reported on by a select commission as proposed by the President in his message at the opening of this session of Congress.

J. MAYHEW WAINWRIGHT.

APPENDIX—EXHIBIT A.

WAR DEPARTMENT,
Washington, July 21, 1923.

THE ATTORNEY GENERAL.

MY DEAR MR. ATTORNEY GENERAL: Under date of May 24, 1922, you furnished me with your opinion upon the validity of certain features of the contract T-69 between the United States and the Alabama Power Co., dated December 1, 1917. In view of conditions which have arisen since May 24, 1922, your further advice is desired with reference to the contract. For your convenience there is inclosed a pamphlet which contains the contract and other documents referred to herein.

Under article 21 of the contract and pursuant to notice given to the Alabama Power Co., copy of which notice appears beginning on page 51b of the inclosed pamphlet, the United States on July 31, 1919, discontinued taking energy, under the contract, from the Warrior extension and Warrior substation and from the transmission line. Those properties belong to the United States, but are located on lands of the company and were placed there under conditions set out in the contract.

The United States has for more than 365 consecutive days, as provided in subdivision 6, and for more than two years, as provided in subdivision 7 of article 22 of the contract, ceased to take energy in accordance with the contract. Subsequent to the expiration of those periods, on, to wit, the 14th day of April, 1923, the company, as permitted by the contract, served notice on the Chief of Ordnance to remove the property from its premises, unless the United States required the company to purchase the property, and accompanied the notice with a letter of the same date to the Chief of Ordnance containing offer of purchase. Copies of the same appear beginning on page 51d and page 51f of the inclosed pamphlet. The 90-day period provided for in subdivision 6 of section 22 of the contract, within which the Government shall elect what disposition to make of the property, expired on July 13, but by mutual agreement in writing this period has been extended to include August 14, 1923.

In his previous opinion the Attorney General advised that the provision for sale to the Alabama Power Co., at a price to be fixed by arbitration, is invalid and that the United States is under no legal obligation to sell the properties to that company.

In view of the notice given I request your opinion whether, the Government having no title to the land upon which either the transmission line or the Warrior extension or the Warrior substation are built, and the option provisions of the contract being invalid as stated in the former opinion, in event the United States should not determine to sell the property to the Alabama Power Co. under the general authority vested in the Secretary of War within the time fixed by the notice, as extended, it will be the duty of the United States to comply with the provision of the contract with reference to removal.

Sincerely yours,

JOHN W. WEEKS,
Secretary of War.

DEPARTMENT OF JUSTICE,
Washington, August 4, 1923.

SIR: I am in receipt of your letter of July 21, 1923, in which, after referring to my opinion of May 24 last (35 Op. 160), you ask my advice upon another question arising in connection with the contract made during the World War with the Alabama Power Co.

The general scope and some particular features of that contract were described in my former opinion. For present purposes it seems sufficient to say that at the time negotiations were begun the Alabama Power Co. was a public service corporation organized under the laws of Alabama, and then engaged in generating and distributing power from a hydroelectric plant on the Coosa River and also from a steam reserve plant located on the Warrior River near the mouth of certain coal mines and about 88 miles from Muscle Shoals, where the Government was about to erect nitrate plants mainly for war purposes. The company then owned a right of way for a transmission line extending 20 miles toward Muscle Shoals. By the contract it agreed to acquire, at its own expense, a right of way for a transmission line for the remaining distance. It was then to build,

at the expense of the United States, on its own lands an additional steam generating plant or unit and a substation connected therewith designated, respectively, as the Warrior extension and the Warrior substation. It was also to erect at the Government's expense on its own right of way a transmission line to the Government's plants at Muscle Shoals. The Government was to acquire no title to the land or right of way, and it was specifically provided that the structures erected at the Government's expense were to be treated as personal property of the United States. When completed and tested, the company was to operate at its own expense the Warrior extension, the substation, and the transmission line and deliver electric power to the United States at its nitrate plants at a price of $6\frac{1}{2}$ mills per kilowatt hour for a period of 10 years from the date of the contract. Two mills per kilowatt hour of the $6\frac{1}{2}$ mills agreed to be paid were, however, to be retained by the United States as an accumulating fund to be ultimately applied as payment by the company, so far as it would go, for the Government's property in the Warrior extension and Warrior substation in case the company should finally purchase the same under one of several alternative provisions stated below. The structures provided for were erected in accordance with the contract, and the Government paid therefor as provided. Actual warfare was ended by the armistice before the commencement of operations, and the plants were never operated except for a short test run thereafter made, and of course no fund was accumulated in the hands of the Government.

The contract in Article XXII contained a number of provisions in the alternative for the sale or disposition of the Government's plants and equipments placed upon the lands of the company. Stated in substance and effect and omitting unnecessary detail, these provisions were substantially as follows:

1. At any time after three years from the termination of the war, the United States had the option to sell to the company and, on the Government's demand, the company was required to buy, the Warrior extension and substation at a value to be fixed by arbitration.

2. When the accumulated fund should be equal to or greater than the actual cost to the United States of the Warrior extension and Warrior substation, the company could demand that the United States convey these properties to it.

3. The company could at any time demand that the United States convey the same properties to it upon payment by the company of any excess of the actual cost thereof over the amount of the fund then accumulated.

4. At any time after December 1, 1926, or at such earlier time as the United States should finally cease to take energy under the contract, the company could demand that the value of the Warrior extension and substation be fixed by arbitration and could then buy them at the arbitrated value.

5. If the company should fail or refuse, on the demand of the Government, to purchase under any of the foregoing provisions, the Government could sell the Warrior extension and Warrior substation to another, but the purchaser would acquire no right to operate them but only the right to remove them from the company's land within six months.

6. If the Warrior extension and Warrior substation were not sold to the company as above provided within a period of 10 years; or, said properties not having been so sold, the United States or its successor in interest should cease for 365 consecutive days to take energy from the Warrior extension; the United States, upon six months' notice in writing from the company, was required to remove the Warrior extension and substation from the lands of the company unless within 90 days after receipt of such notice the Government should exercise its option to require the company to purchase at a price to be fixed by arbitration.

All the foregoing provisions related only to the Warrior extension and substation and not to the transmission line.

As to the transmission line, it was provided:

7. If the United States or its successors should for two consecutive years fail to take energy from the Warrior extension, and in any event at the expiration of 10 years, the United States should, upon six months' written notice from the company, remove the transmission line and appurtenances from the right of way; provided, however, that upon receipt of such notice the Government might require the company to purchase the same at their fair value to be fixed by arbitration.

8. If at any time within 10 years from the date of the contract the United States should sell or lease its nitrate plants, it could assign and transfer to the purchaser or lessee thereof the right to demand and receive electric energy under the contract to the extent of the capacity of the Warrior extension at that time, and any other rights under the contract as might be agreed upon between the

purchaser or lessee and the United States, excluding, however, certain specific rights enumerated; and with a further condition that the successor of the United States should not, without the consent of the company, sell or dispose of any energy supplied by it except to tenants on the properties of the successor.

At the time negotiations were begun there was probably no authority for any Government official to enter into a contract for the use of the lands of another for the erection of structures, etc., thereon by the Government. However, before the contract was signed, Congress passed the act of April 11, 1918 (40 Stat. 518), amending the provisions of the act of July 2, 1917 (40 Stat. 241). As amended the statute reads as follows:

"That hereafter the Secretary of War may cause proceedings to be instituted in the name of the United States, in any court having jurisdiction of such proceedings for the acquirement by condemnation of any land, temporary use thereof or other interest therein, or right pertaining thereto, needed for the site, location, construction, or prosecution of works for fortifications, coast defenses, military training camps, and for the construction and operation of plants for the production of nitrate and other compounds and the manufacture of explosives and other munitions of war and for the development and transmission of power for the operations of such plants; such proceedings to be prosecuted in accordance with the laws relating to suits for the condemnation of property of the States wherein the proceedings may be instituted: *Provided*, That when the owner of such land, interest, or rights pertaining thereto shall fix a price for the same, which in the opinion of the Secretary of War shall be reasonable, he may purchase or enter into a contract for the use of the same at such price without further delay: * * *"

It seems clear that under this statute the Secretary of War was authorized to purchase a right to use temporarily the lands of another for the purpose of erecting plants and structures thereon for the development and transmission of power for operating nitrate plants.

After the Warrior extension, Warrior substation, and transmission line were completed by the company and paid for by the United States, the armistice having intervened; the United States gave notice (March 24, 1919), under another provision of the contract, that it would suspend its demand for energy under the contract. The suspension has continued to this time.

The United States never attempted to exercise its option to require the company to purchase at an arbitrated value. The company, on its part, has never attempted to exercise its option to buy the plants at their cost to the United States, or demanded that the value of the properties be fixed by arbitration and offered to buy them at such value.

In my opinion of May 24 I held that the provisions giving to the company an option to purchase and the provisions by which the Government was to sell at an arbitrated value were invalid for want of power in the Secretary of War to give an option or to agree to sell at values to be determined by arbitration.

You now request a further opinion as to whether, in view of the fact that those provisions of the contract were invalid, and in case the United States should not determine to sell the property to the Alabama Power Co. under the general power vested in the Secretary of War within the time fixed by the notice from the company, it will be the duty of the United States to comply with the provisions in the contract with reference to removal.

The answer to your question seems to depend mainly on the further question whether the fact that the option and arbitration features, which are invalid, are so related to the contract as a whole as to make it entirely invalid, or in any event to make invalid the provision for removal in case none of the options is exercised.

It will be noted, in the first place, that the option and arbitration provisions are not illegal in the sense that they are immoral or *malum prohibitum*. They are merely void for want of power in the Secretary to enter into them. In the second place, all the provisions for disposal are merely alternatives (a) to meet different contingencies which might or might not arise, or (b) to enable the parties respectively to secure results which they might or might not wish to secure when the time came. If any one of these alternative provisions were invoked by the party having the initiative under it, and the other responded by doing the thing required, all the other provisions would be superseded and wholly eliminated.

Apparently the United States did not desire to sell at an arbitrated price, for it did not attempt to proceed under its option, but, instead, raised the question of its power to do so.

The options to buy at cost or at an arbitrated value may have been among the considerations moving the company to enter into the contract, but when the

time came it refrained from any attempt to proceed thereunder, and is not now relying thereon but solely on the provision for removal. It seems clear, therefore, that none of the option or arbitration features are so interwoven with other parts of the contract that his elimination affects the validity of other provisions not in themselves invalid. They have in fact been eliminated by the omission of the parties to act under them, as well as by the fact that they have been found invalid.

The contract then must be considered at the present time simply as a contract for the temporary use of the company's lands and right of way, with an obligation on the part of the Government to remove its buildings, machinery, and equipment from the lands and right of way of the company when it finally ceases to use them.

There can be no doubt, I think, that statutory authority in the Secretary of War to contract for the "temporary" use of the lands of another, by placing Government buildings and machinery upon them, carries with it authority to stipulate for the removal thereof and the restoration of the lands to the owner in their former condition.

If, therefore, we look to the contract alone, your question must be answered in the affirmative.

I deem it proper to say, however, that, in one respect at least, this contract does not control the relation of the United States to the Alabama Power Co. and the properties with which the contract deals. The United States has the power to condemn for public purposes the lands of the company, including those upon which the Government structures have been placed. This is a sovereign attribute which no officer of the Government can waive or impair by contract or otherwise. So that, if there is now in force any legislation authorizing you as an officer of the Government to condemn these lands for public purposes, you are free to initiate proceedings notwithstanding the contract. There is no doubt that, under the act of July 2, 1917, already set forth, you were authorized to condemn this land, and the only question is whether that authority has been revoked. By the act of February 28, 1920 (41 Stat. 453), a provision contained in the Army appropriation act of July 11, 1919 (41 Stat. 104, 128), was modified and amended so as to read in part as follows:

"That no part of any of the appropriations made herein nor any of the unexpended balances of appropriations heretofore made for the support of the Army or the Military Establishment shall be expended for the purchase of real estate * * * except where industrial plants have been constructed or taken over by the Government for war purposes and the purchase of land is necessary in order to protect the interest of the Government; * * *."

It seems clear that the exception made in this act is broad enough to continue in you the authority to condemn the lands here involved, if funds are available to pay the award. A finding by you that the acquisition of such lands is necessary in order to protect the Government's interests is all that is needed to the maintenance of a condemnation suit. *United States v. Forbes*, (259 Fed. 585); affirmed by the circuit court of appeals (268 Fed. 278). A like decision was recently made by the district court, eastern division of Virginia, in *United States v. Old Dominion Land Co. et al.* In both cases it was further held that it was immaterial that the property was no longer needed for war purposes. A formal finding, of course, is unnecessary. The institution of a suit by your direction would be sufficient.

Respectfully,

A. T. SEYMOUR,
Acting Attorney General.

The SECRETARY OF WAR,
Washington, D. C.

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