

Office Memorandum • UNITED STATES GOVERNMENT

TO : Those Listed Below

DATE: March 30, 1956

FROM : ^{RE} Ralph R. Boyer, Chief, Contract Finance Branch
Division of FinanceSUBJECT: MALLINCKRODT CHEMICAL WORKS
APPLICATION FOR CERTIFICATE OF NECESSITY TA-31369
LOCATION: HEMATITE, JEFFERSON COUNTY, MO.

SYMBOL: FAC:JJK

This application has been referred to us for consideration as to whether AEC should express any interest in the application which, if granted, would permit accelerated amortization of these proposed facilities for income tax purposes.

The applicant has acquired 150 acres of land at the above location at a cost of \$39,000. AEC would express no interest in certification of the cost of the land because that does not depreciate. The proposed manufacturing building and related facilities are itemized as follows:

	<u>Estimated Cost</u>
Building (including service and production facilities)	\$143,000
Services (ventilation, air conditioning, deionized water, steam, power, laundry, office, etc.)	138,000
General Facilities (water system, fences, roads, sewers, waste treatment)	41,000
Process Equipment	95,000
Installation of Process Equipment (labor and miscellaneous materials)	143,000
Special Ventilation and Dust Recovery	38,000
Engineering	<u>128,000</u>
	<u>\$726,000</u>

(continued)

Addressees:Charles G. Manly, Chief, Policy and Program Branch, Division of Civilian Application

R. A. Kohler, Liaison Officer, Division of Production, Oak Ridge

R. C. McKenzie, Liaison Officer, Division of Reactor Development, Chicago

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The application contains the following statements:

"The facility for which certification is sought is a chemical plant for the conversion of uranium hexafluoride into ceramic grade uranium dioxide for use in fuel elements for nuclear reactors. The uranium dioxide produced will contain U_{235} in percentages varying from less than one per cent to more than ninety per cent, depending upon the isotopic content of the starting material. It is anticipated that the design of the plant will be sufficiently flexible to permit the production of uranium compounds other than uranium dioxide, although the present application does not cover facilities and equipment for such other production. Because of the location of the plant in an area remote from existing facilities of the applicant, the plant will include provisions for related and accessory facilities such as office space, locker rooms, showers, analytical laboratories, access roads, utilities, fences, etc.

As far as the applicant knows, this plant is the first privately owned and operated facility for the production of enriched uranium compounds in this country. It is being established in pursuance of the declarations, findings, and purposes of the Atomic Energy Act of 1954 as expressed in Sections 1, 2 and 3 thereof, and as implemented by subsequent policy statements of the Atomic Energy Commission. While this plant is intended primarily for use in furtherance of the commercial nuclear power program sponsored by the Atomic Energy Commission, the facility is capable of the production of materials for use in nuclear power propulsion and other units for the military, naval and aircraft programs. The plant will also constitute a net addition to the nation's atomic energy production resources available for defense purposes in the event of a national emergency.

The production capacity of the facility is dependent largely upon the degree of enrichment of the material being handled. It is expected that the production area will be divided into two areas; the larger of which (approximately 4,800 sq. ft.) will be equipped to handle enrichments in the range of 4 to 10% and in which approximately 165 lbs. per day of uranium dioxide will be produced, and the smaller of which (approximately 2,400 sq. ft.) will be equipped to handle lower enrichments in the order of 1.5% and in which approximately 1,000 lbs. per day will be produced. The plant design is sufficiently flexible to permit the installation of specialized equipment to produce uranium dioxide of higher enrichment than 10% and to produce other uranium compounds. No estimate of capacities for this production is possible at this time."

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No AEC or other government contracts are listed in support of this application, but it is stated that the "Applicant is presently negotiating a contract with Westinghouse Electric Corp. under which applicant will supply enriched uranium dioxide for the reactor being constructed for Syndicate d'Etude de l'Energie Nucleaire, Brussels, Belgium."

This application states that this project ". . . is intended primarily for use in furtherance of the commercial nuclear power program sponsored by the AEC . . . ". The AEC policy on industrial participation in commercial development of atomic energy was established in AEC 386/2 dated July 18, 1955. We know that AEC has encouraged the entry of industry into atomic energy development. However, AEC contemplates that such participation by industry shall rely principally on the use of private funds unless the particular project or program requires or justifies financial participation by AEC. The most important benefit of a Certificate of Necessity is the interest-free loan from the Treasury on the postponed tax payments. You have been provided with an analysis of this financial advantage, made in connection with another necessity certificate.

We have previously commented on the Treasury study in the McKinney Report, Volume 2, page 647. At page 650 it states "The Internal Revenue Code of 1954 provided greatly liberalized allowances for depreciation of property which does not qualify for accelerated amortization". At page 651 it states "Research and development is encouraged by the Internal Revenue Code through the provision for the annual writeoff of such expenditures (other than those made for land and buildings) as they are incurred, even though they are of a capital nature and would be written off over their useful life in accordance with accepted accounting practice and the general rules of the income tax law."

It is believed that AEC's position on this and similar applications, which are primarily for industrial participation in commercial development of atomic energy, should be determined on the basis of established AEC criteria and policies, namely the General Manager's memorandum of June 1, 1951 on "Certificates of Necessity", to the extent applicable, and AEC 386/2 dated July 18, 1955. Any proposal to revise AEC criteria in this respect should, when submitted for consideration by Finance, include specific criteria to be uniformly applied to all such applications, as a defense to charges of favoritism or discrimination.

Commerce and ODM are following this matter closely. Accordingly it is requested that your comments be expedited as much as possible.

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