

STATEMENT OF CONSIDERATIONS

REQUEST BY GOLDEN TECHNOLOGIES COMPANY, INC. (GTC) FOR
AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS
UNDER DOE CONTRACT NO: DE-FC02-93CH10561; W(A)-94-014;
CH-0829

Golden Technologies Company, Inc. (GTC) has requested a waiver of domestic and foreign patent rights for all subject inventions under a cooperative agreement for the development of an energy-efficient hydrocarbon dehydrogenation process based on catalytic ceramic membrane reactors under DOE Contract No. DE-FC02-93CH10561.

The objective of the work to be performed under this agreement is to conduct field demonstration of energy efficient hydrocarbon dehydrogenation process based on catalytic ceramic membrane reactors. After developing manufacturing and scale-up technology for ceramic membranes with desired pore size, thickness and configuration, a prototype module containing a single membrane tube will be fabricated and tested. Then a reactor module suitable for pilot scale operation will be designed, fabricated and tested in the field.

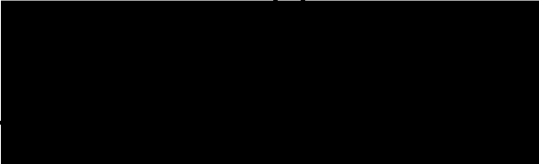
The total estimated cost of the project is expected to be approximately \$6,000,000 over a period of four years. The total approved budget for the period of this cooperative agreement is \$920,807, with the DOE share being \$736,646 and GTC's share \$184,161, for approximately 20% cost sharing.

As noted in its waiver petition, GTC and its predecessor in interest to the technology, Coors Ceramics, have over 50 years of experience in porous ceramic technology. GTC states that, to date, it and its predecessor have invested approximately \$2-3 million in developing various ceramic filter technologies. GTC's current strategy is to develop a filtration business comprised of inorganic micro, ultra and nano-filter products to be sold in metal, chemical and gas, petrochemical, water, pharmaceutical, and biotechnology industries. In this regard, GTC and Coors Ceramics have annual sales of approximately \$250,000 in porous ceramic products and have made a substantial investment in asymmetric porous ceramic filters. Although no sales currently exist for ceramic filters in the catalytic membrane market, GTC expects to acquire a significant market share in this technology with its expertise in ceramics and ceramics marketing. Accordingly, it is reasonable to conclude that GTC fully expects to continue development and ultimately commercialize the results of this agreement.

GTC has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, comparable to those set out in 35 U.S.C. 202-204. Further, GTC has agreed to the U.S. competitiveness provisions as attached to this Statement. In brief, GTC has agreed that products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless GTC can show to the satisfaction of the DOE that it is not commercially feasible to do so. Further, GTC will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements.

Referring to item 9 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. There are currently numerous methods of achieving dehydrogenation reactions apart from those patented by GTC, and with at least 6 other competitors producing ceramic membranes. GTC's annual sales of ceramic and/or catalytic membranes constitute less than 1% of the total sales in the relevant market. The success of the catalytic ceramic membrane technology developed as a result of this assistance agreement can be expected to stimulate investment, not only in that technology, but also in other competing technologies as well.

Considering the foregoing, it is believed that granting this waiver will provide GTC with the necessary incentive to invest its resources in the commercialization of the results of the agreement in a fashion which will make the catalytic ceramic membrane technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 41 CFR 9-9.109-6, all of which have been considered, it is recommended that the requested waiver be granted.


Thomas V. Anderson
Assistant Chief Counsel
Intellectual Property Law
Division

Date: 7/11/94


Daniel D. Park
Patent Attorney
Intellectual Property Law
Division

Date: 7/8/94

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the agreement, where through such modification or extension, the purpose, scope or cost of the agreement has been substantially altered.

CONCURRENCE:



Daniel E. Wiley
Director, Office of
Industrial Process
Separations Division

Date: March 17, 1985

APPROVAL:



Paul A. Gottlieb
Assistant General Counsel
for Technology Transfer
and Intellectual Property

Date: 3-23-85

(c) (3) (ix) U. S. COMPETITIVENESS

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event that DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.

WAIVER ACTION - ABSTRACT
W(A)-94-014

<u>REQUESTOR</u>	<u>CONTRACT SCOPE OF WORK</u>	<u>RATIONALE FOR DECISION</u>	<u>DISPOSITION</u>
Golden Tech, Inc.	Development of catalytic membrane reactors	20% cost sharing	