

## **STATEMENT OF CONSIDERATIONS**

### **REQUEST FOR ADVANCE WAIVER OF PATENT RIGHTS BY INVENTYS THERMAL TECHNOLOGIES INC., UNDER A SUBCONTRACT TO DOE AWARD NO. DE-AC02-05CH11231 TO LAWRENCE BERKELEY NATIONAL LABORATORY; W(A)-2018-006, CH-1796**

Petitioner, Inventys Thermal Technologies Inc., requested a waiver of: (a) domestic and foreign patent rights for all subject inventions conceived solely by Petitioner and (b) Petitioner's undivided interest, based on its employee's contributions, to joint domestic and foreign patent rights for all subject inventions conceived, arising under the above referenced award.

The subcontract under which work is to be performed was issued by The Regents of the University of California as the awardee of Prime Contract No. DE-AC02-05CH11231 for the management and operation of the Lawrence Berkeley National Laboratory and the performance of research and related work. Petitioner is acting as a subcontractor under the Prime Contract. Research will be conducted under the Discovery of Carbon Capture Substances and Systems (DOCCSS) initiative and testing will be performed under DOE's Carbon Capture Program administered by the Office of Fossil Energy through the National Energy Technology Laboratory.

The objective of Petitioner's award is the development of carbon capture technology based on diamine-appended metal-organic frameworks. After development, the metal-organic frameworks will then be piloted at the National Carbon Capture Center's rotary rapid temperature swing adsorption machine.

The total anticipated cost of the award is \$1,804,550.00 of which the Government is to contribute \$1,429,550.00 in addition to Petitioner's contribution of \$375,000.00, or about 20 percent (20%). The portion of the Award relating to Petitioner's subcontract is \$1,661,605. Thus, Petitioner's cost share relative to their portion of the award is about 23 percent (23%). This waiver is contingent upon Petitioner maintaining, in aggregate, the above cost sharing over the course of the award. The period of performance is from September 01, 2018 to August 31, 2021.


Referring to items 5-9 of the waiver petition, Petitioner has extensive experience in related fields including sorbents and gas separation operations. This work has resulted twelve patents for gas separation and four patents and patent applications directed to materials for gas separation. Petitioner previously performed research and development work in large projects such as the 30-ton per day Pikes Peak South Lloyd thermal project (Saskatchewan). Petitioner asserts that without the ability to seek intellectual property rights in inventions resulting from the project, Petitioner may be unable to obtain financing required for commercialization of the technology. Petitioner further asserts they intend to promote the commercial utilization of any inventions in the oil, gas, fertilizer and electric utility industries in the USA and worldwide.

Petitioner has agreed that this waiver will be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to the attached U.S. Competitiveness provision (paragraph (t)). Petitioner further has agreed to the attached revised paragraph (h) to submit annual reports on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by Petitioner and any of its licensee or assignees. If sold or transferred this reporting obligation will pass on to the buyer or transferee.


Petitioner has agreed that products embodying a waived invention or produced through the use of a waived invention will be manufactured substantially in the United States unless the Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so. Petitioner has further agreed to make the above conditions binding on any assignee or licensee or any entity otherwise acquiring rights in the waived inventions, including subsequent assignees and licensees. Should Petitioner or other such entity receiving rights in a waived invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived inventions is suspended until approved in writing by DOE.

Referring to item 10 of the waiver petition, granting this waiver will not have an adverse impact on competition. The fields of gas separation materials and operations utilizing them have several competing firms conducting research and development. These competing firms are researching technology similar to the Petitioner as well as differing technologies for the same gas separation function. Since the field contains competing technologies as well as competitors performing their own research, granting this waiver will not hinder competition in this field.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the agreement in a fashion which will make the 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 10 CFR 784, all of which have been considered, it is recommended that the requested waiver be granted.

  
Jacob A. Heafner  
Patent Attorney  
Intellectual Property Law Division  
DOE ISC-CH

Date: 12/18/2018

  
Michael J. Dobbs  
Deputy Chief Counsel  
Intellectual Property Law Division  
DOE ISC-CH

Date: 12/18/2018



Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the U.S. 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 will not apply to any modification or extension of the award, where through such modification or extension, the purpose, scope or cost of the award has been substantially altered.

CONCURRENCE:

[Redacted Signature]

John Litynski  
Carbon Capture Program Manager  
FE-223

Date: \_\_\_\_\_

APPROVAL:

[Redacted Signature]

Brian J. Lally  
Assistant General Counsel for Technology  
Transfer and Intellectual Property  
GC-62

Date: 2/7/19

WAIVER ACTION - ABSTRACT

W(A)-2018-006

REQUESTOR

Inventys  
Thermal  
Technologies,  
Inc.

CONTRACT SCOPE

Amine-Appended Metal-Organic  
Frameworks as Switch-Like Adsorbents  
for Energy-Efficient Carbon Capture

RATIONALE FOR  
DECISION

Inventys has significant  
experience in this field, has  
developed inventions leading  
to more than 15 patents in the  
areas of gas separation  
materials and operations, and is  
commercialize products  
developed under the waiver.

(h) Reporting on utilization of subject inventions.

The Contractor agrees to submit annual reports on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor and any of its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceedings undertaken by DOE in accordance with paragraph (j) of this clause. To the extent data or information supplied under this paragraph is considered by the Contractor, its licensee or assignee to be privileged and confidential and is so marked, DOE agrees that, to the extent permitted by law, it shall not disclose such information to persons outside the Government.

(t) 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 the 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.