

## STATEMENT OF CONSIDERATIONS

REQUEST BY DR. F. JEFFREY MARTIN (INVENTOR) FOR THE WAIVER OF DOMESTIC AND FOREIGN RIGHTS TO AN IDENTIFIED INVENTION ENTITLED "METHOD OF PRODUCING LIQUID FUELS AND CHEMICALS FROM CARBON DIOXIDE AND NATURAL GAS," DEVELOPED UNDER DOE CONTRACT NO. DE-AC52-06NA25396; DOE INVENTION DISCLOSURE NO. S-121,736; DOE WAIVER NO. W(I) 2012-012

The Petitioner, Dr. F. Jeffrey Martin (Inventor), has requested a waiver of the Government's domestic and foreign patent rights in an invention entitled "Method of Producing Liquid Fuels and Chemicals from Carbon Dioxide and Natural Gas." The subject invention was conceived by the Inventor (an employee of Los Alamos National Security, LLC). Los Alamos National Security, LLC (LANS) is the M&O Contractor for the Los Alamos National Laboratory (LANL), a government-owned, contractor-operated (GOCO) facility, subject to DOE contract number DE-AC52-06NA25396 at the time the invention was conceived. LANS employed the Inventor at the time of the development and creation of the invention at issue.

The subject invention relates to the field of liquid fuels, specifically the conversion of natural gas into liquid fuels including gasoline, diesel fuel, and jet fuel. The invention is a new process based on carbon dioxide reforming of methane. The new process has three major benefits over existing gas to liquids (GTL) processes: (1) it is more energy efficient, (2) it is more economical, and (3) lifecycle carbon dioxide emissions are significantly less than other GTL processes and petroleum refining. LANS, in writing, has supported Inventor's request for title of this invention.

The Petitioner has agreed to expend such sums as may be required to obtain and maintain the necessary patent protection over the subject invention. Petitioner has committed to investing his own funds for initial development and believes that he possesses both adequate technical and financial resources to reduce the subject invention to practice should title be granted. The Petitioner expects to have the subject invention manufactured and marketed under contract or to license the subject invention for manufacture and sale by others.

This technology is controlled under the DOC EAR (15 CFR Part 774, Category 3 specifically EAR99), and requires no license for export. Furthermore, the technology does not apply directly to the Naval Nuclear Propulsion Program or to the nuclear weapons programs or other nuclear or atomic energy defense activities of DOE/NNSA. Petitioner has agreed to abide by 35 U.S.C. §§ 202, 203 and 204. Petitioner, as part of the petition, has agreed to the provisions of the U.S. Competitiveness Clause, which reads as follows: "The Petitioner agrees that any product embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States, unless Petitioner can show to the satisfaction of DOE that it is not commercially feasible to do so. In the event 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 Government investment, etc." Furthermore, Petitioner has agreed to make this condition binding on any assignee or licensee.

Petitioner will also abide by the Export Control laws and will require its licensees, if any, to do the same.

Granting the waiver is the only way to promote prompt commercial utilization of this invention. There is currently no DOE programmatic interest in funding this invention any further and LANS also does not wish to expend more funds to promote the invention. The Inventor's interest in obtaining title and actively seeking commercialization sufficiently satisfies DOE/NNSA's technology transfer mission without the need to expend governmental funds.

As such, upon evaluation of the Waiver Petition 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.

  
Fred A. Lewis  
Patent Attorney, NNSA

Date: 6/20/12

Based on the foregoing Statement of Considerations and the representations of 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.

CONCURRENCE:

[Redacted Signature]

Program Manager (Edward Lee)  
AFOSR

Date: 12 June 2012

APPROVAL:

[Redacted Signature]

John T. Lucas  
Assistant General Counsel for  
Technology Transfer and  
Intellectual Property (GC-62)

Date: August 9, 2012