STATEMENT OF CONSIDERATIONS

REQUEST BY ASTRONAUTICS CORPORATION OF AMERICA FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN INVENTION RIGHTS UNDER DOE COOPERATIVE AGREEMENT NO. DE-FC26-03NT41948; W(A)-05-058, CH-1344

The Petitioner, Astronautics Corporation of America (Astronautics) was awarded a cooperative agreement for the performance of work entitled, "Magnetic Refrigeration Technology for High Efficiency Air Conditioning." The objective of the project is to advance the state-of-the-art in magneto-caloric air conditioning. Under this cooperative agreement, Astronautics will develop advanced, second-generation regenerator matrix designs through the use of finite element methods for fluid flow, thermal and mechanical modeling. This waiver is only for inventions of Astronautics made under the cooperative agreement.

The total estimated cost of the contract is \$1,859,664 with the DOE share being \$1,369,748 or 74%. The remaining cost-share of \$489,916 or 26% will be provided by Astronautics. The period of performance is from October 1, 2003 through May 31, 2006.

In its response to question 5 of the attached waiver petition, Astronautics has described its technical competence in the field of magnetic refrigeration. It began investing in this technology in 1984 with the demonstration of an Active Magnetic Refrigerator (AMR). This work has continued, including with projects receiving funds from the Department of Energy. Astronautics has developed considerable know-how relating to designs, design methods, and additional technical data related to items, systems, components, and processes for magnetic refrigeration. Astronautics has provided a list of its issued U.S. Patents in this technological area, and has indicated that there are other patent applications pending. Astronautics' response demonstrates its technical competency in the field of magnetic refrigeration.

In its response to question 10 of the attached waiver petition, Astronautics states that acquisition of the waiver will help to accelerate market introduction of a new refrigeration product which will allow U.S. consumers and the U.S. economy to more rapidly accumulate the environmental and energy benefits of magnetic refrigeration technology. The effect on market concentration is not expected to be significant. Refrigeration products will be provided to consumers at competitive prices. Therefore grant of the waiver will have a positive effect on competition and market concentration.

The subject contract will be modified to add the Patent Rights--Waiver clause in conformance with 10 CFR 784.12, wherein Astronautics has agreed to the provisions of 35 U.S.C §§ 202, 203, and 204. This waiver clause will also include a paragraph entitled U.S. Competitiveness (modified), in which Astronautics agrees to substantial U.S. manufacture of subject inventions (attached hereto). This modified U.S. Competitiveness clause has been negotiated among the petitioner, the undersigned patent counsel, and DOE programmatic officials at the National Energy Technology Laboratory and in the DOE Headquarters Office of Energy Efficiency and Renewable Energy. Additionally, Astronautics agrees not to transfer subject inventions to any other entity unless that other entity agrees to these same requirements.

Considering the foregoing, it is believed that granting the waiver will provide the Petitioner with the necessary incentive to invest resources in the commercialization of the results of the agreement in a fashion which will make the agreement's benefits available to the public in the shortest practicable time. In addition, it would appear that grant of the above requested waiver would not result in an adverse effect on competition nor result in excessive market concentration.

Therefore, 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, as set forth above, be granted.



Assistant Chief Counsel Office of Intellectual Property Law

Date Day 19

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

CONCURRENCE:

APPROVAL:

Arun Vohra

Office of the Building Technologies Program Office of Energy Efficiency and Renewable Energy, EE-2J

06 Date

Paul A. Gottlieb Assistant General Counsel for Technology Transfer and Intellectual Property, GC-62 Date 4 - 13 - 06 (t) U. S. Competitiveness (modified for DE-FC26-03NT41948).

The Contractor agrees that any products, that will be sold within the United States, 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. It is agreed that any development work performed under this contract required for advanced regeneration matrixes having high thermal effectiveness (product) will occur in the United States, and that the completion of a successful product will promote the growth of the Contractor's Company. 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)-05-058 (CH-1344)

REQUESTOR

CONTRACT SCOPE OF WORK

RATIONALE FOR DECISION

DISPOSITION

Astronautics Corporation of America under DOE contract No. DE-FC26-03NT41948 Magnetic Refrigeration Technology for High Efficiency Air Conditioning 26% cost sharing