STATEMENT OF CONSIDERATIONS

PETITION FOR ADVANCE WAIVER OF PATENT RIGHTS BY KENNAMETAL INC. UNDER SUBCONTRACT NO. QZ001 UNDER PRIME CONTRACT NO. DE-FG36-04GO14041 WITH THE UNIVERSITY OF UTAH; W(A)-04-011; CH-1181

The Petitioner, Kennametal, Inc., has requested a waiver of domestic and foreign patent rights for subject inventions arising under its subcontract under the above referenced Prime Contract entitled "Energy Efficient Process for Synthesis and Consolidation of Cemented Tungsten Carbide." This waiver does not apply to the rights of other parties, those subject to Public Law 96-517, as amended, and rights in inventions made by employees of the National Laboratories.

The objective of the project is to develop an energy efficient process for the synthesis and consolidation of cemented tungsten carbide (WC). The work is to produce nano-sized WC and Co powders from a vapor-phase mixture of chlorides of both WC and Co and methane-hydrogens. The powder will then be sintered by an improved ultra-high pressure rapid heating compaction process. The high pressure technology utilizes rapid omni-directional compression to pressurize the powder. Further, a new glass having better electrical and heat conductivity properties will be used in the rapid omni-directional compression process.

The total cost of the project is $2.6 million. The cost share under the prime contract is expected to be $1.3 million (50%). Of the total cost share amount, Petitioner will contribute $.4 million or about 30%. This waiver is contingent upon the Petitioner maintaining the above cost sharing over the course of its subcontract under the prime contract.

As noted in its waiver petition, Petitioner has been manufacturing tungsten carbide products since 1938 and has been granted over 545 patents in this field since 1976. Petitioner's technical competence is in the manufacturing process of tungsten carbide, cemented tungsten carbide, and ceramic compositions, geometries for metal cutting and other tools. Additionally, Petitioner has an established commercial position for cemented tungsten carbide worldwide. A large percentage of Petitioner's global sales of approximately $1.8 billion in fiscal year 2003 is attributed to sales of cemented WC products. Petitioner has also made substantial development and manufacturing investments with five plants that produce commercial grade WC powder and nine plants that consolidate cemented WC. Considering Petitioner's technical expertise, established market position, and significant investment in this technology including sizable cost sharing in this project, it is reasonable to conclude that Petitioner will continue to develop and ultimately commercialize the technology and products which may arise from this subcontract.

Petitioner 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, Petitioner has agreed to the U.S. competitiveness provisions as attached to this Statement. In brief, Petitioner has agreed that products embodying intellectual property developed under this agreement shall be substantially manufactured in the United States, and that Petitioner will not license, assign or otherwise transfer any waived invention to

any entity unless that entity agrees to these same requirements. Additionally, Petitioner has agreed to contractor data licensing provisions as attached herein.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. Petitioner is not the largest provider of metal cutting tools and tooling systems in the world. There are approximately 40 companies engaged in cemented tungsten carbide business in the United States, and even more outside the United States. Also, there are competitive alternate products offered by other companies in the types of cemented WC products made by Petitioner. In fact, the success of this project can be expected to stimulate further investment and competition in this technology.

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 subcontract in a fashion which will make the above 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.

Michael P. Hoffman
for Daniel D. Park
Assistant Chief Counsel
Intellectual Property Law Division

Date: 2/25/04

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 subcontract, where through such modification or extension, the purpose, scope or cost of the subcontract has been substantially altered.

CONCURRENCE:

Buddy Garland
Program Manager
Industrial Technology Program
EE-20

Date: 2/27/04

APPROVAL:

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

Date: 3-1-04