

Statement of Considerations

REQUEST BY THE CARBORUNDUM COMPANY FOR AN ADVANCE
WAIVER OF DOMESTIC AND FOREIGN RIGHTS IN SUBJECT
INVENTIONS MADE IN THE COURSE OF OR UNDER PHASE II OF
SUBCONTRACT 86X-SD861C OF MARTIN MARIETTA ENERGY
SYSTEMS INC. CONTRACT NO. DE-AC05-84OR21400; DOE
WAIVER DOCKET W(A)-93-025 [ORO-554]

The Carborundum Company (Carborundum) has made a timely request for an advance waiver to worldwide rights in Subject Inventions made in the course of or under Department of Energy (DOE) subcontract RFP No. 86X-SD861C. The scope of the work calls for the development of a vapor-liquid-solid (VLS) process for the production of silicon carbide whiskers and yarn fabrication. The work is sponsored by the Office of Fossil Energy.

The dollar amount of Phase II of the subcontract is \$439,475 with Carborundum cost sharing \$84,441, 19% of the subcontract plus the purchase of a carding machine at a cost of \$40,040 which will be the property of Carborundum.

Carborundum is an established producer of materials and processes for making silicon carbide (SiC) in various forms. It has a history of investing its own resources to develop, test, manufacture and introduce silicon carbide technology such as the powder used in the production of articles of sintered alpha-type silicon carbide, as well as processes for joining silicon carbide to metallics and use in ceramic reinforcement. Other fields of expertise include forming SiC articles, high volume fabrications and matrix composite development for which numerous patents have issued. Therefore, Carborundum's experience and expertise will contribute substantially to commercialization of the inventions made under the subcontract.

Carborundum sells structured sintered silicon carbide articles. Its share of the structural ceramics market is 5%, and of the sintered alpha-silicon carbide market is greater than 90%. United States sales in 1992 were approximately \$15,300,000 with \$18,069,000 projected for 1993. Considering its market position, it has the capability to commercialize the silicon carbide products developed under the subcontract.

Carborundum has a history of research and development leading to commercialization of developed silicon carbide products and has also made an investment in the expansion of its production facility at a cost of about \$2 million to produce SiC powders to meet the market of the 1990's. It is committing resources previously used in these activities, such as personnel, equipment, and expertise, to develop the silicon carbides under this subcontract.

This subcontract is Phase II of a previously executed subcontract for which a waiver was granted. If the requested waiver is approved, a patent rights clause embodying what is presently the standard DOE waiver terms and conditions, agreed to by Carborundum, including march-in rights, retention by the Government of a license, Preference for U.S. industry, and U.S. Competitiveness clauses will be added by a no-cost modification to the

subcontract. The advance patent waiver will also contain a paragraph that limits Carborundum's ability to alienate waived rights. Specifically, Carborundum shall not transfer rights in any invention without prior approval of DOE. Also, should there be a change in ownership of Carborundum, rights in inventions will be suspended until approval by DOE of the entity obtaining controlling interest having the waiver.

For its U.S. Competitiveness clause, Carborundum agrees that any products embodying any waived invention or produced through the use of any waived invention during the term of a United States patent covering the waived invention will be manufactured substantially in the United States unless Carborundum can show to the satisfaction of the Contracting Officer that it is not commercially feasible to do so.

Granting of the waiver should have little effect on competition since there are several technology options, this being one of many previously or yet-to-be developed in the marketplace. Therefore, there should not be undue market concentration of Carborundum products.

Grant of the requested waiver should serve as encouragement to other DOE contractors that significant cost sharing will be recognized as an acceptable consideration for granting greater rights in Subject Inventions.

The waiver is limited to inventions made under the terms of the subcontract as signed August 2, 1993. Should the parties enter into new agreement that changes the scope of this subcontract, such as another phase, neither this waiver nor previously granted waiver would extend to the new agreement.

In view of the acceptable level of cost sharing by Carborundum and the objectives and considerations set forth in 41CFR 9-9.109, all of which have been considered, it is recommended that the requested waiver for worldwide rights be granted.



Katherine Lovingood
Senior Patent Attorney

Based on the foregoing Statement of Considerations and the representations in the attached Waiver Petition, it is determined that the interest of the United States and the general public will best be served by a waiver of U.S. and foreign patent rights, and therefore, the waiver is granted. This waiver shall not apply to a modification or extension of the cost-shared subcontract where, through such a modification or extension, the purpose, scope or cost of the subcontract has been substantially altered.

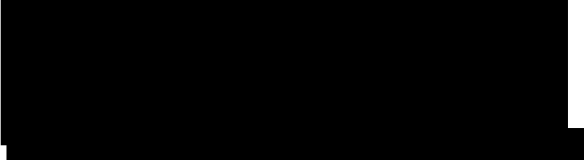
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