

## Statement of Considerations

REQUEST BY NORTON COMPANY FOR AN ADVANCE WAIVER OF  
DOMESTIC AND FOREIGN RIGHTS IN SUBJECT INVENTIONS MADE  
IN THE COURSE OF OR UNDER MARTIN MARIETTA ENERGY  
SYSTEMS SUBCONTRACT NO. 86X-SB182C UNDER CONTRACT NO.  
DE-AC04-84OR21400; DOE WAIVER DOCKET W(A)-93-022  
[ORO-553]

Norton Company (Norton) has made a timely request for an advance waiver to worldwide rights in Subject Inventions made in the course of or under Phase II of Energy Systems Subcontract No. 86X-SB182C. The scope of the work calls for the development and verification of significant improvements in processing methods, process controls, and nondestructive evaluation developed under Phase I of the subcontract which can be commercially implemented to produce high reliability silicon nitride components for advanced heat engine applications. The work is sponsored by the Office of Transportation Technologies.

The dollar amount of Phase II of the subcontract is \$954,430 with Norton cost sharing \$238,607, 25% of the subcontract.

Norton is one of the world leaders in developing and commercializing advanced ceramics for use as components in heat engines and other applications. Norton's involvement in silicon nitride powders and monoliths began in 1970 with the acquisition of the technology from a British company. Since then, Norton has improved the technology and has exploited it commercially. Norton has patented, developed, and manufactured several silicon nitride-based materials and has numerous technical publications in this area. In addition, Norton is committing resources previously used in these activities, such as personnel, equipment, and expertise, to develop the process under this subcontract. This commitment includes a 100,000 square foot research and development facility to support High Performance Ceramics staffed by more than 130 scientists and support personnel.

Norton, through its divisions directly involved in heat engine components and ceramic bearing components, currently provides ceramic parts to virtually all of the major engine companies within the United States. The NTC Components Group, founded in 1985 and wholly owned by Norton, is dedicated to the development and manufacture of such components for heat engine applications. This group has extensive technical and manufacturing expertise in such applications for ceramic components. Considering Norton's market position and experience, it has the capability to commercialize the process developed under this subcontract.

The subcontract has been executed and is proceeding with the standard DOE long form patent clause. If the requested waiver is approved, a patent rights clause embodying the standard DOE waiver terms and conditions, approved by Norton, 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 Norton's ability to alienate waived rights. Specifically, Norton shall not transfer rights in any invention

without prior approval of DOE. Also, should there be a change in ownership of Norton, rights in inventions will be suspended until approval by DOE of the entity obtaining controlling interest having the waiver.

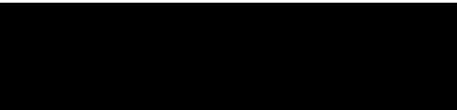
Norton agrees that any products embodying any waived invention or produced through the use of any waived invention during the term of a United States patent covering the waived invention will be manufactured substantially in the United States unless Norton can show to the satisfaction of the Contracting 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 Norton 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 February 26, 1993. Should the parties enter into an agreement that changes the scope of this subcontract, such as another phase, a previously granted waiver would not extend to the new agreement.

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



Emily C. Green  
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.

CONCURRENCE:

APPROVAL:

JJB  
8/18/94

[Redacted signature]

Thomas J. Gross  
Acting Deputy Assistant Secretary  
for Transportation Technologies

[Redacted signature]

Judson R. Hightower  
Acting Assistant General Counsel  
for Technology Transfer  
and Intellectual Property

Date: 8/23/94

Date: 1/3/95