

STATEMENT OF CONSIDERATIONS

REQUEST BY DE NORA, NORTH AMERICA (DE NORA) FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN RIGHTS TO INVENTIONS MADE UNDER COOPERATIVE AGREEMENT NUMBER DE-FC04-02AL67606, DOE WAIVER NO. W(A) 02-036.

The Petitioner, De Nora, has requested a waiver of all domestic and foreign patent rights to inventions that may be conceived or first actually reduced to practice in the course of De Nora's work under Cooperative Agreement Number DE-FC04-02AL67606 entitled "Integrated Manufacturing for Advanced Membrane Electrode Assemblies" with the U.S. Department of Energy (DOE).

The work to be done will be the design, development and manufacture of improved cathodes and membranes for Proton Exchange Membrane Fuel Cells (PEMFC). This work will hopefully greatly increase the efficiency and power derived from hydrogen-powered fuel cells. This research and development will lead to broader use of fuel cell technologies, which will result in better air quality and lowered dependence on unstable overseas oil supplies.

The cooperative agreement covers a period from December 1, 2001 through October 30, 2005 at a total cost to DOE of \$14.5M. DOE funds to be provided as follows: FY01/02 -- \$3.5M; FY03 -- \$3.5M; FY04 -- \$3.5M; FY05 -- \$4.0M. De Nora will provide over \$20.1M as a cost share over the life of this agreement. The government contribution will be made through Budget & Reporting Code EE0502 sponsored by the Office of Advanced Automotive Technologies. De Nora has previously expended in excess of \$100M in the development of this technology over the last ten years. Furthermore, De Nora would invest an additional \$10M - \$15M in the future for the manufacture of these advanced fuel cell components.

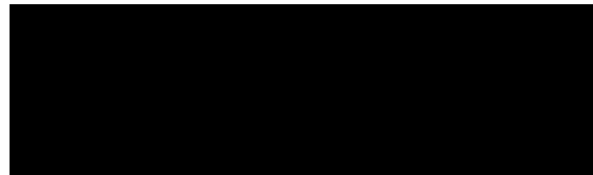
The work will be performed by E-Tek (the high technology division of De Nora, North America). De Nora, North America, is a New Jersey-based, wholly owned U.S. affiliate of the Italian-based multinational Gruppo De Nora (which is itself wholly-owned by Italian-based Norfin S.p.A. holding company). E-Tek has over three decades of experience in the development and commercialization of catalysts, electrodes and membrane electrode assemblies. De Nora, by itself and through its multinational parent corporation, has a global marketing base - allowing for swift, thorough and worldwide commercialization and implementation of any improved fuel cell technology that may be developed under this cooperative agreement. Additionally, De Nora has partnered with E.I. du Pont de Nemours and Company (DuPont) to assist in the mass production and global marketing of any inventions generated under this cooperative agreement and covered by this waiver. DuPont has over two hundred years of mass production expertise as well as a firmly established global marketing capability. Thus, based on the dynamic nature of the technology itself, as well as the research and development being done in this field worldwide, it is not foreseen that the grant of this waiver would decrease

competition, cause undesirable market concentration, nor place De Nora in a dominant market position.

De Nora has agreed to abide by 35 U.S.C. §§ 202, 203 and 204, as well as the provisions of the Standard Patent Rights clause for an Advance Waiver. Additionally, De Nora has agreed to the provisions of the attached U.S. Competitiveness Clause, which requires Petitioner to substantially manufacture any products embodying or produced through any waived invention in the United States, unless Petitioner can convince DOE it is not commercially feasible to do so. Petitioner agrees to make this condition binding on any assignee or licensee. De Nora will abide by the Export Control laws and will require its licensees, if any, to do the same. De Nora will expend such sums as may be required to maintain the necessary patent protection and provide incentive for commercial development of the invention. Additionally, De Nora has affirmatively agreed to the background data rights clause found in 48 CFR 952.227-14, Alternate VI (February 1998) (attached).

Considering Petitioner's status as a leader in the development, production and commercialization of fuel cell component technology, it is concluded that the grant of the requested waiver is most likely to achieve commercialization success and actual implementation of this fuel cell, hydrogen storage technology on both a national and global scale.

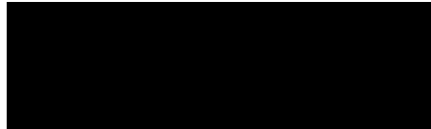
As such, upon evaluation of the Waiver Petition in view of the objectives and considerations set forth in 10 CFR 784.4, all of which have been considered, it is recommended that the requested waiver be granted.



Jim C. Durkis
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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. This waiver shall not apply to a modification or extension of the cooperative agreement where, through such modification or extension, the purpose, scope or DOE cost of the cooperative agreement have been substantially altered.

CONCURRENCE:

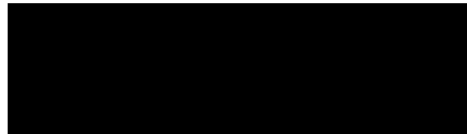


Steven G. Chalk
Acting Director, Office of Hydrogen, Fuel Cells
and Infrastructure Technologies Program (EE-2H)

Date:

1/10/03

APPROVAL:



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Assistant General Counsel for
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Intellectual Property (GC-62)

Date:

1-13-03

DOE Headquarters Project Manager: JoAnn Milliken