

Statement of Considerations

Request by General Electric Company (GE) for an Advance Waiver of Domestic and Foreign Patent Rights to Inventions made under a contract entitled "Intelligent Extruder" DOE Cooperative Agreement DE-FC02-99CH10972; W(A)-99-007, CH1001.

General Electric Company has requested an advance waiver of domestic and foreign patent rights to inventions its employees may conceive or first actually reduce to practice in the performance of DOE Cooperative Agreement No. DE-FC02-99CH10972.

As brought out in the attached waiver petition, the work to be performed is the development of software algorithms for monitoring, diagnostics and control of compounding extruder systems, using conventional sensor data readily available in state of the art compounding equipment. The scope of the work also includes the use of high frequency torque data to estimate the internal conditions in the screw, drive and associated systems of the compounding equipment.

The dollar amount of the cooperative agreement is \$1,500,000 with a 50% cost share by GE. Prior to the start of the above referenced cooperative agreement, GE committed \$250,000 in corporate funds to this project. Total GE funding related to the Intelligent Extruder technology is expected to be \$1 million dollars.

GE has formed an alliance with GE Industrial Controls, GE Plastics and Krupp Werner Pfleiderer (KWP), a major screw compounding equipment supplier. KWP is not a subcontractor of GE. GE would retain all intellectual property rights for inventions made under this contract. GE and KWP have had a long term partnership, with GE serving as a component supplier to KWP, and KWP serving as a system supplier to GE Plastics. GE is a supplier of motors, adjustable speed drives, process control equipment, and related services. KWP is a supplier of state-of-the-art compounding twin-screw extruders, related controls, and services, and is currently manufacturing extruders in Ramsey, NJ. KWP has extensive direct sales and distribution channels which will be utilized to commercialize the technology. Both parties have supplied equipment to the plastics industry for more than 30 years.

GE and KWP have extensive facilities for compounding experimental studies as brought out in Section 4 of the Technical Application of the Petitioner's Proposal. GE has a high-bay multipurpose facility for polymer synthesis. Both KWP and GE have complementary facilities in Ramsey, NJ and Mt. Vernon, IN, respectively. KWP has 58 and 133mm twin-screw compound extruder facilities for use in this project. GE Plastics will provide the full-scale demonstration site.


In response to paragraph 10, GE states that the grant of this waiver will have no adverse effect on competition and market concentration. As shown by a third party study, KWP has a 7% current market share. GE estimates that at the completion of this project, the alliance would increase its market share to 10%.

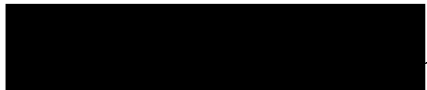
GE has agreed to the terms of the usual advance patent waiver and background data licensing provisions. These advance patent waiver provisions include a Government license, march-in rights and preference for U.S. industry provisions comparable to those set out in 35 U.S.C. 202-204, as well as the Attached U.S. Competitiveness clause which requires that products embodying a waived invention or produced through the use of a waived invention be manufactured substantially in the United States unless the participant can show to the

satisfaction of DOE that it is not commercially feasible to do so. In the event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. GE has also agreed to make the above conditions binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees. Additionally, should GE or other entity receiving rights in any waived invention undergo a change in ownership amounting to a controlling interest, the waiver, assignment, license or other transfer of rights in the waived invention is suspended until approved in writing by DOE.

The grant of this waiver is not anticipated to result in any adverse effects on competition or the public health, safety and welfare. Rather, the resulting technology would reduce waste production and reduce energy utilization.

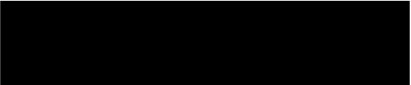
Considering the foregoing, and in view of the statutory objectives to be obtained and the factors to be considered, it has been determined that this advance waiver of patent rights will best serve the interest of the United States and the general public. Subject to GE maintaining at least fifty percent (50%) cost sharing in aggregate, over the term of this agreement, it is recommended that the waiver be granted.


Thomas G. Anderson
Assistant Chief Counsel
Office of Intellectual Property Law
Date: 10-20-99

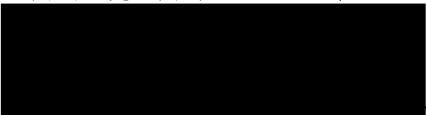

Joy Alwan
Patent Attorney
Office of Intellectual Property Law
Date: 20 Oct 99

Based on the foregoing Statement of Considerations, it is determined that the interest of the United States and the general public will be best served by a waiver of the United States and foreign rights as set forth therein, and therefore the waiver is granted. This waiver shall not affect any waiver previously granted.

CONCURRENCE:


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Director *Program Manager*
Advanced Industrial
Concepts Division
SF-059/FORS
Date: 1/27/2000

APPROVAL:


Paul A. Gottlieb
Assistant General Counsel
for Technology Transfer and
Intellectual Property
Date: 1-31-00

WAIVER ACTION - ABSTRACT

REQUESTOR: General Electric Company
DE-FC02-99CH10972

CONTRACT SCOPE OF WORK: Development of software algorithms for monitoring, diagnostics and control of compounding extruder systems.

RATIONAL FOR DECISION: Granting of the waiver will provide the incentive to commercialize the invention in a fashion which will benefit the public in the shortest practical time.

DISPOSITION :