FORM PTO-1619A Expires 06/30/99 OMB 0651-0027 10-01-2003



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#### U.S. Department of Commerce Patent and Trademark Office PATENT

# RECORDATION FORM COVER SHEET PATENTS ONLY

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).					
Submission	—·	Conveyance Type			
<b>√</b> New	1-27-65		ity Agreement		
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Conveying		Mark if additional names of con-	veying parties attached Execution Date  Month Day Year		
Name (line 1)	General Electric Company		1/23/03		
Name (line 2)			Execution Date		
Second Party			Month Day Year		
Name (line 1)					
Name (line 2)					
Receiving P	arty	Mark if additional	names of receiving parties attached		
Name (line 1)	United States Department of Energy		If document to be recorded is an assignment and the		
			receiving party is not domiciled in the United		
Name (line 2)			States, an appointment		
Addrose (line 1)	1000 Independence Avenue		of a domestic representative is attached.		
Address (fille 1)	1000 independence Avenue		(Designation must be a separate document from		
Address (line 2)			Assignment.)		
Address (line 3)	Washington	D.C. USA	20585		
	City	State/Country	Zip Code		
Domestic Representative Name and Address  Enter for the first Receiving Party only.					
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Mail documents to be recorded with required cover about 6) information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB

Mail documents to be recorded with required cover sheet(s) information to:

Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

PATENT

FORM PTO- Expires 06/30/99 OMB 0651-0027	1619B	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT
Correspond	dent Name and Address	Area Code and Telephone Number	630-252-2042
Name	Robert J. Fisher		
Address (line 1)	U.S. Department of Energy		
Address (line 2)	Intellecual Property Law Division		
Address (line 3)	9800 S. Cass Ave		
Address (line 4)	Argonne, IL 60439		
Pages	Enter the total number of parincluding any attachments.	ges of the attached conveyance docume	nt # 08
Application	Number(s) or Patent Nur	mber(s) Mark if a	dditional numbers attached
		Patent Number (DO NOT ENTER BOTH numbers for	• • •
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Nam	e of Person Signing	Signature	Date

# **CONFIRMATORY LICENSE**

(Large Business - Advanced Waiver)

RD27912

Title

Structures for Attaching or Sealing a Space Between Components

having Different Coefficients or Rates of Thermal Expansion

Inventor(s)

Gregory Scot Corman; Anthony John Dean; Mario Pecchioli; and

Leonardo Tognarelli

Serial No.

10/065,876

Filing Date: November 27, 2002

Contractor

General Electric Company

**DOE Contract No.:** 

DE-FC02-92CE41000

Waiver No.

W(C) 92-005 - CH0943

Patent Clause

Advance Waiver of Patent Rights

DOE Case No.

S-95,175 - Disclosure No. RD-27912

Foreign Applications filed in or intended to be filed at Contractor's expense in (countries):

ALL COUNTRIES OF THE WORLD

An advanced waiver of Government rights having been granted by the U.S. Department of Energy (DOE) to the Contractor, and the above-identified invention having been reported as a subject invention to DOE by the contractor with his election to file a domestic patent application thereon, the effective date of said waiver for the above invention is <u>March 1, 2000</u>.

Accordingly, this document is confirmatory of the paid-up, worldwide, license required to be granted to the Government under 10 CFR Part 784 and this contract in this invention, patent application and any resulting patent as well as any continuation, divisional, reissue, supplemental or continuation-in-part thereof, and of all rights acquired by the Government by the referenced patent rights clause, a copy of which is attached hereto and incorporated by reference herein. The undersigned certifies the attached copy to be a true copy of said clause. It is understood and agreed that this license does not preclude the Government from asserting rights under the provisions of said contract or any other agreement between the Government and the Contractor, or any other rights of the Government with respect to the above-identified invention.

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

(2-1-)	Signed this 23rd day of January 2003	
(SEAL)	GENERAL ELECTRIC COMPANY	
1 10.06	(Contractor)	
onald S. Ingraham	-By: Chan & Christian G. Cabou, General Counsel,	,
ttesting Secretary	(Contractor's Official & Title)	
_	Global Intellectual Property and Legal Organization	on
	Global Research, PO Box 8, Schenectady, NY 12301	

(Business Address)

# THIS REQUEST HAS DOUBLE SIDED DOCUMENTS ENCLOSED.

W6)92-005 CH 0943 DE-FC02-93CE4101

#### ADVANCE CLASS WAIVER OF PATENT RIGHTS

#### (a) <u>Definitions</u>,

- (1) "Subject Invention" means any invention or discovery of the Grantee and, where DOE has granted an advance waiver of patent rights, of its subcontractors who are not domestic small business or non profit entities who may elect title to inventions pursuant to P.L. 97-517, as amended, which are conceived or first actually reduced to practice in the course of or under this agreement, and includes any art, method, process, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plants, whether patented or unpatented under the Patent Laws of the United States of America or any foreign country.
- (2) "Contract" means any contract, grant, agreement, understanding, or other arrangement, which includes research, development, or demonstration work, and includes any assignment or substitution of parties.
- (3) "Government agency" includes an executive department, independent commission, board, office, agency, administration, authority, Government corporation, or other Government establishment of the Executive Branch of the Government of the United States of America.
- (4) "To the point of practical application" means to manufacture in the case of a composition or product, to practice in the case of a process, or to operate in the case of a machine and under such conditions as to establish that the invention is being worked and that its benefits are reasonably accessible to the public.
- (5) "Patent Counsel" means the DOE Patent Counsel assisting the procuring activity.

# (b) Allocation of principal rights.

- (1) Assignment to the Government. The Grantee agrees to assign to the Government the entire right, title, and interest throughout the world in and to each Subject Invention, except to the extent that rights are waived to and retained by the Grantee under paragraphs (b)(2) and (c) of this clause.
- (2) Greater rights determinations. The Grantee or the employee-inventor with authorization of the Grantee may request greater rights than the domestic and foreign patent rights provided in paragraph (c) of this clause on identified inventions in accordance with 41 CFR 9-9.109-6. Such requests must be submitted to Patent Counsel (with notification by Patent Counsel to the Contracting Officer) at the time of the first disclosure pursuant to paragraph (e)(2) of this clause, or not later than nine (9) months

- (B) Fails to have a United States patent application filed on the invention in accordance with paragraph (d)(1) of this clause, or decides not to continue prosecution of such application; or
  - (C) At any time, no longer desires to retain title.
- (ii) Subject to the rights granted in paragraph (c)(1) of this clause, the Grantee agrees to convey to the Government, upon request, the entire right, title, and interest in any Subject Invention in any foreign country if the Grantee:
- (A) Does not elect pursuant to paragraph (c)(2)(ii) of this clause to retain such rights in the country; or
- (B) Fails to have a patent application filed in the country on the Subject Invention in accordance with paragraph (d)(3) of this clause, or decides not to continue prosecution or to pay any maintenance fees covering the invention. To avoid forfeiture of the patent application or patent, the Grantee shall notify the Patent Counsel not less than sixty (60) days before the expiration period for any action required by the foreign Patent Office.
- (iii) Conveyance requested pursuant to paragraphs (c)(3)(i) and (c)(3)(ii) of this clause shall be made by delivering to the Patent Counsel duly executed instruments and such other papers as are deemed necessary to vest in the Government the entire right, title, and interest in the invention to enable the Government to apply for and prosecute patent applications covering the invention in this or the foreign country, respectively, or otherwise establish its ownership of the invention.
- (iv) For each invention in which the Grantee initially elects pursuant to (c)(2)(i) or (c)(2)(ii) of this clause not to retain the rights waived, the Grantee shall inform the Patent Counsel promptly in writing of the date and identity of any on sale, public use, or public disclosure of the invention which may constitute a statutory bar under 35 USC 102, which was authorized by or known to the Grantee, or any contemplated action of this nature.

## (v) Government License

With respect to any Subject Invention in which the Grantee retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the Subject Invention throughout the world.

- (2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Grantee, assignee, or their licensees;
- (3) Such action is necessary to meet requirements for public use specified by federal regulations and such requirements are not reasonably satisfied by the Grantee, assignee, or licensees; or
- (4) Such action is necessary because the agreement required by paragraph (c)(3)(vii) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any Subject Invention in the United States is in breach of such agreement.
- (ix) The Grantee will obtain written approval of the Contracting Officer prior to licensing or otherwise transferring rights in a subject invention to third parties other than its subcontractors or the Grantee's or its subcontractors' licensees or affiliates at the time of the execution of their respective agreements under this project of DOE's Continuous Fiber Ceramic Composite Program.
- (x) The Grantee agrees that any products it or its subsidiaries or affiliates, if any, use or sell in the United States, either embodying a subject invention or produced through the use of a subject invention will be manufactured substantially in the United States.
- (xi) In the event the Grantee or a subcontractor under this agreement other than parties who may elect title to inventions pursuant to P.L. 97-517, as amended, does not participate in subsequent phases of this CFCC Project, the subsequent Grantee or designated holding company, as the remaining participants in this CFCC Project may decide, shall retain as a minimum a royalty-free nonexclusive license throughout the world, with the right to grant sublicenses, in each subject invention held by such participant pursuant to the Advance Class Waiver of Patent Rights for Technology Developed Under DOE Funding Agreements Relating to DOE's Continuous Ceramics Composite Program.

# (4) <u>Terminations</u>.

- (i) Any waiver or retention of rights by the Grantee under paragraphs (b)(2), (c)(1), or (c)(2) of this clause may be terminated at the discretion of the Secretary or his designee, in whole or in part, if the request for waiver or retention of rights by the Grantee is found to contain false material statements or nondisclosure of material facts, and such were specifically relied upon in reaching the waiver determination or the agreement to the retention of rights by the Grantee.
- (ii) Any waiver of the rights retained in accordance with paragraph (c)(2), as applied to particular inventions, may be terminated at the discretion of the Secretary or his designee, in whole or in part, if the Grantee fails to comply with the provisions set forth in paragraph (c)(3) and paragraph (d) of this clause, and such failure is determined by the Secretary or his designee to be material and detrimental to the interests of the United States and the general public.

-5-

- (i) Within two (2) months after the filing or within two (2) months after submission of the invention disclosure if the patent application previously has been filed, deliver to Patent Coursel a copy of the application as filed including the filing date and serial number;
- (ii) Within six (6) months after filing the application or within six (5) months after submitting the invention disclosure if the application has been filed previously, deliver to the Patent Coursel a duly executed and approved instrument fully confirmatory of all rights to which the Government is entitled, and provide DOE an irrevocable power to inspect and make copies of the patent application filed;
- (iii) Provide the Patent Counsel with a copy of the patent within two (2) months after a patent is issued on the application;
- (iv) Not less than thirty (30) days before the expiration of the response period for any action required by the Patent and Trademark Office, notify the Patent Counsel of any decision not to continue prosecution of the application and deliver to the Patent Counsel executed instruments granting the Government a power of attorney; and
- (v) Include the following statement in the second paragraph of the specification of the application and any patents issued on a Subject Invention, "The Government of the United States of America has rights in this invention pursuant to Contract No. \_\_\_\_\_\_ (or Grant No. \_\_\_\_\_\_) awarded by the U.S. Department of Energy".
- (3) With respect to each Subject Invention in which the Grantee has elected pursuant to paragraph (c)(2)(ii) of this clause to retain the patent rights waived in specified foreign countries, or in which the Grantee has obtained a waiver of foreign rights on an identified invention:
- (i) The Grantee shall file a patent application on the invention in each specified foreign country in accordance with applicable statutes and regulations and within one of the following periods:
- (A) Eight (8) months from the date of filing a corresponding United States application, or if such an application is not filed, six months from the date the invention is submitted in a disclosure pursuant to paragraph (e)(2)(i) of this clause;
- (B) Six (6) months from the date a license is granted by the Commissioner of Patents and Trademarks to file the foreign patent application where such filing has been prohibited by security reasons; or
- (C) Such longer period as may be approved by the Patent Counsel for good cause shown in writing by the Grantee.

- (B) All Subject Inventions have been disclosed or that there are no such inventions;
- (C) All subcontracts containing a Patent Rights clause have been reported or that no such subcontracts have been awarded; and
- (ii) A final report on a DOE-approved form within three (3) months after completion of the contract work listing all Subject Inventions and all subcontracts awarded containing a Patent Rights clause and certifying that:
- (A) All Subject Inventions have been disclosed or that there were no such inventions; and
- (B) All subcontracts containing a Patent Rights clause have been reported or that no such subcontracts have been awarded.
- (3) The Grantee shall obtain patent agreements to effectuate the provisions of this clause from all persons in its employ who perform any part of the work under this contract except nontechnical personnel, such as clerical employees and manual laborers.
- (4) The Grantee agrees that the Government may duplicate and disclose Subject Invention disclosures and all other reports and papers furnished or required to be furnished pursuant to this clause. If the Grantee is to file a fereign patent application on a Subject Invention, the Government agrees, upon written request, to use its best efforts to withhold publication of such invention disclosures until the expiration of the time period specified in paragraph (d)(1) of this clause, but in no event shall the Government or its employees be liable for any publication thereof.

### (f) Publication.

It is recognized that during the course of the work under this contract, the Grantee or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that public disclosure of such information will not adversely affect the patent interests of DOE or the Grantee, patent approval for release or publication shall be secured from Patent Counsel prior to any such release or publication.

# (g) Forfeiture of rights in unreported Subject Inventions.

(1) The Grantee shall forfeit to the Government, at the request of the Secretary or his designee, all rights in any Subject Invention which the Grantee fails to report to Patent Counsel (with notification by Patent Counsel to the Contracting Officer) within six months after the time the Grantee:

- (i) Establish the procedures of paragraph (e)(1) of this clause; or
- (ii) Maintain and follow such procedures; or
- (iii) Correct or eliminate any material deficiency in the procedures within thirty (30) days after the Contracting Officer notifies the Grantee of such a deficiency.
- (i) Withholding of payment (not applicable to subcontracts).
- (1) Any time before final payment of the amount of this agreement, the Contracting Officer may, if he deems such action warranted, withhold payment until a reserve not exceeding \$50,000 or five percent .5%) of the amount of this agreen ent, whichever is less, shall have been set aside if in his opinion the Grantee fails to:
- (i) Establish, maintain and follow effective procedures for identifying and disclosing Subject Inventions pursuant to paragraph (e)(1) of this clause; or
- (ii) Disclose any Subject Invention pursuant to paragraph (e)(2)(i) of this clause; or
- (iii) Deliver the interim reports pursuant to paragraph (e)(2)(ii) of this clause; or
- (iv) Provide the information regarding subcontracts pursuant to paragraph (j)(5) of this clause; or
- (v) Convey to the Government in a DOE-approved form the title and/or rights of the Government in each Subject Invention as required by this clause.
- (2) The reserve or balance shall be withheld until the Contracting Officer has determined that the Grantee has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this clause.
- (3) Final payment under this agreement shall not be made by the Contracting Officer before the Grantee delivers to Patent Counsel all disclosures of Subject Inventions and other information required by (e)(2)(i) of this clause, the final report required by (e)(2)(iii) of this clause, and Patent Counsel has issued a patent clearance certification to the Contracting Officer.
- (4) The Contracting Officer may, in his direction, decrease or increase the sums withheld up to the maximum authorized above. If the Grantee is a nonprofit organization, the maximum amount that may be withheld under this paragraph shall not exceed \$50,000 or one percent (1%) of the amount of this contract, whichever is less. No amount shall be withheld under this paragraph while the amount specified by this

Subject Inventions. The Grantee shall not be obligated to enforce the agreements of any Subcontractor hereunder relating to the obligations of the Subcontractor to the Government regarding Subject Inventions.

### (k) Background Patents.

- (1) "Background Patent" means a domestic patent covering an invention or discovery which is not a Subject Invention and which is owned or controlled by the Grantee at any time through the completion of this contract:
- (i) Which the Grantee, but not the Government, has the right to license to others without obligation to pay royalties thereon, and
- (ii) Infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this contract.
- (2) The Grantee agrees to and does hereby grant to the Government a royalty-free, nonexclusive license under any Background Patent for purposes of practicing a subject of this contract by or for the Government in research, development, and demonstration work only.
- (3) The Grantee also agrees that upon written application by DOE, it will grant to responsible parties for purposes of practicing a subject of this contract nonexclusive licenses under any Background Patent on terms that are reasonable under the circumstances. If, however, the Grantee believes that exclusive or partially exclusive rights are necessary to achieve expeditious commercial development or utilization, then a request may be made to DOE for DOE approval of such licensing by the Grantee.
- (4) Notwithstanding the foregoing paragraph (k)(3), the Grantee shall not be obligated to license any Background Patent if the Grantee demonstrates to the satisfaction of the Secretary or his designee that:
- (i) a competitive alternative to the subject matter covered by said Background Patent is commercially available or readily introducible from one or more other sources; or
- (ii) the Grantee or its licensees are supplying the subject matter covered by said Background Patent in sufficient quantity and at reasonable prices to satisfy market needs, or have taken effective steps or within a reasonable time are expected to take effective steps to so supply the subject matter.

RTIFICATE OF I icant(s):	MAILING BY FIRST CLAS	SS MAIL (37 CFR 1.8)		Docket No. S-95,175
Serial No. 065,876	Filing Date November 27, 2002	Examiner		Group Art Unit
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MAILING BY FIRST CLAS	SS MAIL (37 CFR 1.8)		Docket No.
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Structures for Attaching or Seal	ling a Space Between Compon	ents ha	aving
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P07B/REV03

**RECORDED: 09/29/2003 REEL: 014534 FRAME: 0740**