FORM PTO-1 Expires 06/30/99 OMB 0651-0027 MPC 9-1) 1 4-99 record	9-16-1999	Patent and	tment of Commerce Trademark Office PATENT				
TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).								
Submission		Conveyance Type						
V New		Assignment	Security Agreement					
Resubmis Documen	ssion (Non-Recordation) t ID#	License	Change of Name					
Correctio	n of PTO Error Frame #	Merger 🗸 🤇	Other CONFIRMATO	RY LICENSE				
	e Document	U.S.	Government U.S. Government Agencies)					
Reel #	Frame #	Departmen		t File				
Conveying I	Party(ies)	Mark if additional names of	of conveying parties attacl	red Execution Date				
Name (line 1)	GENERAL ELECTRIC COMPANY			Month Day Year 07/21/1999				
Name (line 2)	· · · · · · · · · · · · · · · · · · ·		\					
Second Party				Execution Date Month Day Year				
Name (line 1)								
Name (line 2)								
Receiving P	arty	Mark if add	itional names of receiving	parties attached				
Name (line 1)	UNITED STATES DEPARTMENT OF	ENERGY		document to be recorded an assignment and the				
Name (line 2)			di	ceiving party is not omiciled in the United				
Address (line 1)	States, an appointment of a domestic 1000 INDEPENDENCE AVENUE, S.W. (Designation wust be a series							
	TOOD INDEPENDENCE AVENUE, S.	••	s	Designation must be a Aparate document from Ssignment.)				
Address (line 2)								
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FOR OFFICE USE ONLY								
Public burden reportin and gathering the det	g for this collection of information is estimated to an a needed to complete the Cover Sheet Send com	erage approximately 30 minutes per Cover Sh	eet to be recorded, including time	for reviewing the document				
Washington.	Office of Information and Regulatory Affairs, Office	of Management and Budget. Paperwork Red	U.S. Patent and Trademark Office	, Chief Information Officer,				
	Mail documents to be reco Commissioner of Patents and T	rded with required cover sheet	(s) information to:					

FORM PTO-1619B Expires 06/30/99 OMB 0651-0027	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT				
Correspondent Name and Addres	S Area Code and Telephone Number	[630] 252-2393				
Name Robert J. Fisher						
Address (line 1) U.S. Department of Energy						
Address (line 2) Office of Intellectual Property L	aw					
Address (line 3) 9800 South Cass Avenue						
Address (line 4) Argonne, Illinois 60439						
Pages Enter the total number of including any attachmen	pages of the attached conveyance docume ts.	ent # 15				
Application Number(s) or Patent N		additional numbers attached				
Enter either the Patent Application Number or Patent Application Number(s	the Patent Number (DO NOT ENTER BOTH numbers f	for the same property). t Number(s)				
09 300,691						
If this document is being filed together with a new was	Patent Application, enter the date the patent applicat	tion <u>Month Day Year</u>				
Patent Cooperation Treaty (PCT)						
Enter PCT application number		PCT				
only if a U.S. Application Numl has not been assigned.	Der PCT	PCT				
Number of Properties Enter the to	otal number of properties involved.	01				
Fee Amount Fee Amount for Properties Listed (37 CFR 3.41):						
Method of Payment: Er Deposit Account	nclosed Deposit Account					
Deposit Account (Enter for payment by deposit account or if additional fees can be charged to the Deposit Account Number: #						
	Authorization to charge additional fees:	Yes No 🗸				
Statement and Signature						
To the best of my knowledge and attached copy is a true copy of th indicated herein.	I belief, the foregoing information is true an ne original document. Charges to deposit a	nd correct and any account are authorized, as				
Mark P. Dvorscak	mpDrovscale	9/10/99				
Name of Person Signing	Signature	Date				

CONFIRMATORY LICENSE

(Advanced Class Waiver of Patent Rights)

Title	:	Turbine Assembly Containing an	Inner Shroud		
Inventor(s)	:	Gregory S. Corman, Bharat S. Bagepalli, Anthony J. Dean, Paul S. DiMascio & Massoud Mirdamadi			
Serial No.	:	09/300,691	Filing Date:	<u>April 27, 199</u> 9	
Subcontractor	:	General Electric Company			
DOE Contract No.:	:	DE-FC02-92CE41000			
DOE Case No. :		S-90,50 4			
DOE Advanced Class Waiver No.: W(C)-92-005					

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

All Countries of the world.

An advanced class waiver of Government rights having been granted by the U.S. Department of Energy (DOE) to *General Electric Company* and the above-identified invention having been reported as a Subject Invention to DOE by the contractor with its election to file a domestic patent application thereon, the effective date of said waiver for the above invention is *February 23, 1998*.

Accordingly, this document is confirmatory of the paid-up license required to be granted to the Government under 41 CFR 9-9.109.6 and the above-identified 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.

(SEAL)

Donald S. Ingradam Attesting Secretary

Signed this ______ 21st _____ day of ______ July _____ 19_99

GENERAL ELECTRIC COMPANY

(Contractor)

By: <u>Douglas E. Stoner, Counsel-Patent and Legal Operation</u> (Contractor's Official and Title)

P.O. Box 8, Schenectady, NY 12301

(Business Address)

W(c) 92-005

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) <u>Assignment to the Government</u>. 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) <u>Greater rights determinations</u>. 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

after conception or first actual reduction to practice, whichever occurs first, or such longer period as may be authorized by Patent Counsel (with notification by Patent Counsel to the Contracting Officer) for good cause shown in writing by the Grantee.

(c) <u>Rights to the Grantee</u>.

(1) <u>Minimum Grantee license</u>. The Grantee reserves an irrevocable, nonexclusive, paid-up license in each patent application filed in any country on a Subject Invention and any resulting patent in which the Government acquires title. The license shall extend to the Grantee's domestic subsidiaries and affiliates, if any, within the corporate structure of which the Grantee is a part and shall include the right to grant sublicenses of the same scope to the extent the Grantee was legally obligated to do so at the time the grant was awarded. The license shall be transferable only with approval of DOE except when transferred to the successor of that part of the Grantee's business to which the invention pertains.

(2) Election to retain waived rights.

(i) Subject to the provisions of paragraph (c)(3) and paragraph (d) of this clause, with respect only to a Subject Invention reported in accordance with paragraph (e)(2)(i) of this clause and with the written report of which is included an election as to whether the Grantee will retain the rights in the invention waived therein, the Grantee reserves the entire domestic right, title and interest in any United States patent application on the Subject Invention filed and any resulting United States patent secured by the Grantee.

(ii) Subject to the provisions of paragraph (c)(3) and paragraph (d) of this clause, with respect only to a Subject Invention reported in accordance with paragraph (e)(2)(i) of this clause and with the written report of which is included an election as to whether the Grantee will retain the rights in the invention waived herein and a statement specifying those foreign countries in which such rights will be retained, and subject to DOE security regulations and requirements, the Grantee reserves the entire right, title and interest in any foreign patent application on the Subject Invention filed and any resulting foreign patent secured by the Grantee in those foreign countries specified.

(3) Terms and Conditions of Waived Rights.

(i) Subject to the rights granted in paragraph (c)(1) of this clause, the Grantee agrees to convey to the Government, upon request, the entire domestic right, title, and interest in any Subject Invention when the Grantee:

(A) Does not elect pursuant to paragraph (c)(2)(i) of this clause to retain such rights;

(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)(i) 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)(i) 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.

(vi) <u>Reporting on Utilization of Subject Inventions</u>

The Grantee agrees to submit on request periodic reports no more frequently than annually on the utilization of a Subject Invention or on efforts at obtaining such utilization that are being made by the Grantee or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Grantee, and such other data and information as DOE may reasonably specify. The Grantee also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by DOE in accordance with paragraph (c)(3)(viii) of this clause. To the extent data or information supplied under this paragraph is considered by the Grantee, its licensee or assignee to be privileged and confidential and is so marked, DOE agrees that, to the extent permitted by 35 USC 202(c)(5), it will not disclose such information to persons outside the Government.

(vii) Preference for United States Industry

Notwithstanding any other provision of this clause, the Grantee agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any Subject Invention in the United States unless such person agrees that any products embodying the Subject Invention or produced through the use of the Subject Invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Grantee or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(viii) March-in Rights

The Grantee agrees that with respect to any Subject Invention in which it has acquired title, DOE has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of DOE to require the Grantee, an assignee or exclusive licensee of a Subject Invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Grantee, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that:

(1) Such action is necessary because the Grantee or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the Subject Invention in such field of use; (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.

(iii) Prior to terminating any waiver of rights under paragraph (c)(4)(i) or (c)(4)(i) of this clause, the Grantee will be given written notice of the intention to terminate the waiver of rights, the extent of such proposed termination and the reasons therefor, and a period of 30 days, or such longer period as the Secretary or his designee shall determine for good cause shown in writing, to show cause why the waiver of rights should not be so terminated.

(iv) All terminations of waivers of rights under paragraph (c)(4)(ii) shall be subject to the rights granted in paragraph (c)(1) of this clause, and termination shall normally be partial in nature, requiring the Grantee to grant nonexclusive or partially exclusive licenses to responsible applicants upon terms reasonable under the circumstances.

(5) Effective Date of Waivers.

The waiver of rights in a Subject Invention shall be effective on the following dates:

(i) For advance waivers of identified inventions, i.e., inventions conceived prior to the effective date of the agreement, on the effective date of the agreement even though the advance waiver may have been requested after that date;

(ii) For identified inventions under advance waivers, i.e., inventions conceived or first actually reduced to practice after the effective date of the agreement, on the date the invention is reported with the election to retain the waived rights in that invention; and

(iii) For waivers of identified inventions (other than under an advance waiver), on the date of the letter notifying the requestor that the waiver has been granted.

(d) Filing of patent applications.

(1) With respect to each Subject Invention in which the Grantee elects to retain domestic rights pursuant to paragraph (c)(2)(i) of this clause, the Grantee shall have a domestic patent application filed on the invention within six (6) months after submission of the invention disclosure pursuant to paragraph (e)(2)(i) of this clause, or such longer period of time as may be approved by the Patent Counsel for good cause shown in writing by the Grantee. For each identified invention, the rights in which are waived to the Grantee, the Grantee shall have a domestic patent application filed on the invention within six (6) months after the waiver has become effective. With respect to the invention, the Grantee shall promptly notify the Patent Counsel of any decision not to file an application.

(2) For each Subject Invention on which a domestic patent application is filed by the Grantee, the Grantee shall:

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(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 Counsel 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 (6) months after submitting the invention disclosure if the application has been filed previously, deliver to the Patent Counsel 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.

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(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 foreign 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) Files or causes to be filed a United States or foreign patent application thereon; or

(ii) Submits the final report required by paragraph (e)(2)(ii) of this clause, whichever is later.

(2) However, the Grantee shall not forfeit rights in a Subject Invention if, within the time specified in (1)(i) or (1)(ii) of this paragraph (g), the Grantee:

(i) Prepared a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the contract and delivers the same to Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or

(ii) Contending that the invention is not a Subject Invention the Grantee nevertheless discloses the invention and all facts pertinent to this contention to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or

(iii) Establishes that the failure to disclose did not result from the Grantee's fault or negligence.

(3) Pending written assignment of the patent applications and patents on a Subject Invention determined by the Secretary or his designee to be forfeited (such determination to be a final decision under the Disputes Clause of this contract), the Grantee shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph (g) shall be in addition to and shall not supersede other rights and remedies which the Government may have with respect to Subject Invention.

(h) Examination of records relating to inventions.

(1) The Contracting Officer or his authorized representative, until the expiration of three (3) years after final payment under this agreement, shall have the right to examine any books (including laboratory notebooks), records, documents, and other supporting data of the Grantee which the Contracting Officer or his authorized representative reasonably deem pertinent to the discovery or identification of Subject Inventions or to determine compliance with the requirements of this clause.

(2) The Contracting Officer or his authorized representative shall have the right to examine all books (including laboratory notebooks), records and documents of the Grantee relating to the conception or first actual reduction to practice of inventions in the same field of technology as the work under this contract to determine whether any such inventions are Subject Inventions, if the Grantee refuses or fails to: (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 agreement, 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)(ii) 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

paragraph is being withheld under other provisions of the contract. The withholding of any amount or subsequent payment thereof shall not be construed as a waiver of any rights accruing to the Government under this contract.

(j) <u>Subcontracts</u>.

(1) For the purpose of this paragraph the term "Grantee" means the party awarding a subcontract and the term "Subcontractor" means the party being awarded a subcontract, regardless of tier.

(2) The Grantee will include the Patent Rights clause of DEAR 952.227-71 suitably modified to identify the parties in all subcontracts, regardless of tier, for experimental, developmental or research work to be performed by a small business or a domestic nonprofit organization. In all other subcontracts, regardless of tier, for experimental, developmental demonstration, or research work, the Grantee shall include the Patent Rights article of 41 CFR 9-9.107-5(a) or 41 CFR 9-9.107-6 as appropriate, modified to identify the parties.

(3) Except as may be otherwise provided in this clause, the Grantee shall not, in any subcontract or by using a subcontract as consideration therefor, acquire any rights in its subcontractor's Subject Invention for the Grantee's own use (as distinguished from such rights as may be required solely to fulfill the Grantee's contract obligations to the Government in the performance of this contract).

(4) All invention disclosures, reports, instruments, and other information required to be furnished by the Subcontractor to DOE, under the provisions of a Patent Rights clause in any subcontract hereunder may, in the discretion of the Contracting Officer, be furnished to the Grantee for transmission to DOE.

(5) The Grantee shall promptly notify the Contracting Officer in writing upon the award of any subcontract containing a Patent Rights clause by identifying the Subcontractor, the work to be performed under the subcontract, and the dates of award, and estimated completion. Upon the request of the Contracting Officer the Contractor shall furnish him a copy of the subcontract.

(6) The Grantee shall identify all Subject Inventions of the Subcontractor of which it acquires knowledge in the performance of this contract and shall notify the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) promptly upon the identification of the inventions.

(7) It is understood that the Government is a third party beneficiary of any subcontract clause granting rights to the Government in Subject Inventions, and the Grantee hereby assigns to the Government all rights that the Grantee would have to enforce the Subcontractor's obligations for the benefit of the Government with respect to 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 royaltyfree, 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.

(l) Atomic Energy.

(1) No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the Grantee or its employees with respect to any invention or discovery made or conceived in the course of or under this contract.

(2) Except as otherwise authorized in writing by the Contracting Officer, the Grantee will obtain patent agreements to effectuate the provisions of paragraph (1)(1) of this clause from all persons who perform any part of the work under this contract, except nontechnical personnel, such as clerical employees and manual laborers.

(m) <u>Limitation of rights</u>.

Nothing contained in this Patent Rights clause shall be deemed to give the Government any rights with respect to any invention other than a subject invention except as set forth in the Patent Rights clause of this contract with respect to Background Patents and the Facilities License.