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FINANCE SECTION

DESIGNATION FORM COVER SHEET
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TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

New **2-3-03**
 Resubmission (Non-Recordation)
Document ID#
 Correction of PTO Error
Reel # Frame #
 Corrective Document
Reel # Frame #

Conveyance Type

Assignment Security Agreement
 License Change of Name
 Merger Other Confirmatory License
U.S. Government
(For Use ONLY by U.S. Government Agencies)
 Departmental File Secret File

Conveying Party(ies)

Mark if additional names of conveying parties attached
Execution Date
Month Day Year

Name (line 1) Ford Motor Company

01/09/2003

Name (line 2)

Second Party

Name (line 1)

Execution Date
Month Day Year

Name (line 2)

Receiving Party

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 States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 2)

Address (line 1) 1000 Independence Avenue

Address (line 2)

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.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

FOR OFFICE USE ONLY

Correspondent Name and Address

Area Code and Telephone Number

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

Pages

Enter the total number of pages of the attached conveyance document including any attachments.

#

Application Number(s) or Patent Number(s)

Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

<input type="text" value="09/469,040"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

If this document is being filed together with a new Patent Application, enter the date the patent application was

Month Day Year

Patent Cooperation Treaty (PCT)

Enter PCT application number only if a U.S. Application Number has not been assigned.

PCT <input type="text"/>	PCT <input type="text"/>	PCT <input type="text"/>
PCT <input type="text"/>	PCT <input type="text"/>	PCT <input type="text"/>

Number of Properties

Enter the total number of properties involved.

#

Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41): \$

Method of Payment: Enclosed 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 belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Mark P. Dvorscak

1-27-03

Name of Person Signing

Signature

Date

CONFIRMATORY LICENSE

(Large Business - Advanced Waiver)

Title : *Exhaust Gas Purification System for Lean Burn Engine*

Inventor(s) : *Leland Milburn Haines*

Serial No. : *09/469,040* Filing Date: *December 21, 1999*

Subcontractor : *Ford Motor Company*

Subcontract No. : *NREL-ZCB-4-13032-02*
Prime Contract No. DE-AC36-83CH10093

Waiver No. : *W(A) 93-032 (CH-0790)*

Patent Clause : *Appendix MRI/Ford-C (09/20/93)*

DOE Case No. : *S-94,038 - (Disclosure No. 199-0790)*

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

EPO: Germany, Great Britain, Sweden

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 August 19, 1999.

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.

Signed this 9th day of January 2003

(SEAL)

Ford Motor Co.

(Contractor)

Assistant Secretary

By: 

Thomas DeZure (Contractor's Official & Title)

The American Road, Dearborn, Michigan 48121

(Business Address)

PATENT
REEL: 013711 FRAME: 0149



MIDWEST RESEARCH INSTITUTE

APPENDIX MRI/FORD-C

INTELLECTUAL PROPERTY PROVISIONS

Appendix MRI/FORD-C
09/20/93

PATENT
REEL: 013711 FRAME: 0150

APPENDIX MRI/FORD-C

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CLAUSE 1 - ADVANCE WAIVER PATENT RIGHTS

A. *Definitions.*

1. "*Subject invention*" means any invention or discovery of the Subcontractor conceived or first actually reduced to practice in the course of or under this subcontract, 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. "*Subcontract*" 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. "*States and domestic municipal governments*" means the States of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Trust Territory of the Pacific Islands, and any political subdivision and agencies thereof.
4. "*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.
5. "*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.
6. "*Patent Counsel*" means the DOE Patent Counsel assisting the procuring activity.
7. "*Contracting Officer*" means the DOE Contracting Officer for prime contract No. DE-AC02-83CH10093 with the Midwest Research Institute.

B. *Allocation of Principal Rights.*

1. *Assignment to the Government.* The Subcontractor 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 Subcontractor under paragraphs B2 and C of this clause.
2. *Greater Rights Determinations.* The Subcontractor or the employee-inventor with authorization of the Subcontractor 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 E2 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 Subcontractor.

C. *Rights to the Subcontractor.*

1. *Minimum Subcontractor License.* The Subcontractor 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

Subcontractor's domestic subsidiaries and affiliates, if any, within the Subcontractor's corporate structure of which the Subcontractor is a part and shall include the right to grant sublicenses of the same scope to the extent the Subcontractor was legally obligated to do so at the time the subcontract was awarded. The license shall be transferable only with approval of DOE except when transferred to the successor of that part of the Subcontractor's business to which the invention pertains.

2. *Election to Retain Waived Rights.*

- (i) Subject to the provisions of paragraph C3 and paragraph D of this clause, with respect only to a Subject Invention reported in accordance with paragraph E2(i) of this clause and with the written report of which is included an election by the Subcontractor to retain the waived rights in the invention, the Subcontractor 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 Subcontractor.
- (ii) Subject to the provisions of paragraph C3 and paragraph D of this clause, with respect only to a Subject Invention reported in accordance with paragraph E2(i) of this clause and with the written report of which is included an election by the Subcontractor to retain the waived rights in the invention and a statement specifying those foreign countries in which such rights will be retained, and subject to DOE security regulations and requirements, the Subcontractor 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 Subcontractor in those foreign countries specified.

3. *Terms and Conditions of Waived Rights.*

- (i) Subject to the rights granted in paragraph C1 of this clause, the Subcontractor agrees to convey to the Government, upon request, the entire domestic right, title, and interest in any Subject Invention when the Subcontractor:
 - (a) Does not elect pursuant to paragraph C2(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 D1 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 C1 of this clause, the Subcontractor agrees to convey to the Government, upon request, the entire right, title, and interest in any Subject Invention in any foreign country if the Subcontractor:
 - (a) Does not elect pursuant to paragraph C2(ii) of this clause to retain such rights in the foreign country; or
 - (b) Fails to have a patent application filed in the foreign country on the Subject Invention in accordance with paragraph D3 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 Subcontractor shall notify the Patent Counsel not less

than 60 days before the expiration period for any action required by the foreign Patent Office.

(iii) Conveyances requested pursuant to paragraphs C3(i) and C3(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 Subcontractor initially elects pursuant to C2(i) or C2(ii) of this clause not to retain the rights waived, the Subcontractor 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 Subcontractor, or any contemplated action of this nature.

(v) *Government License.*

With respect to any Subject Invention in which the Subcontractor 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 any Subject Invention throughout the world.

(vi) *Reporting on Utilization of Subject Inventions.*

The Subcontractor 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 Subcontractor 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 Subcontractor, and such other data and information as DOE may reasonably specify. The Subcontractor also agrees to provide additional reports as may be requested by DOE in accordance with paragraph (vii) of this clause. To the extent data or information supplied under this section is considered by the Subcontractor, its licensee or assignees 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 Subcontractor 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 Subcontractor 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 Subcontractor agrees that with respect to any Subject Invention in which it has acquired title, DOE has the right, in accordance with the procedures in OMB Circular A-124, to require the Subcontractor, 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 Subcontractor, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that:

- (a) Such action is necessary because the Subcontractor 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;
- (b) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Subcontractor, assignee, or their licensees;
- (c) Such action is necessary to meet requirements for public use specified by federal regulations and such requirements are not reasonably satisfied by the Subcontractor, assignee, or licensees; or
- (d) Such action is necessary because the agreement required by paragraph (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) *U. S. Competitiveness.*

- (a) The Parties recognize that an object of this Subcontract is to improve the economic competitiveness of U.S. based companies by maintaining or increasing U.S. employment. Notwithstanding any other provision of this Subcontract, the Parties agree that ^{neither} they 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 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 a Party 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.
- (b) In the event a Party or any assignee is or becomes a company or an entity which is majority owned or controlled, directly or indirectly, by a non U.S. company or entity, or a Party or any assignee transfers title, in any Subject Invention or patent or patent application based thereon to any such foreign owned or controlled entity, then such Party or assignee shall, at DOE's request, grant sublicenses under such invention, patent and/or patent application to U.S. owned or controlled companies identified to such Party or assignee by DOE, under fair and reasonable terms.

- (c) In the event that a Party, any assignee or licensee elects to grant licenses to non-affiliated third parties under any Subject Invention or patent or patent application based thereon, such Party, assignee or licensee as the case may be, will give preference to U.S. manufacturers (especially small and disadvantaged businesses) who have demonstrated the capability of providing high quality products and services.
- (d) For five (5) years after the termination or expiration of this Subcontract, major hybrid vehicle propulsion components that use Subject Inventions, copyrighted works or Protected Hybrid Vehicle Information first produced under this Subcontract, will be manufactured substantially in the United States.
- (e) The Parties agree that DOE may sublicense Subject Inventions, copyrighted works and Protected Hybrid Vehicle Information first produced under this Subcontract, under reasonable royalty bearing terms, for use or sale in the United States, beginning five (5) years after the termination or expiration of this Subcontract.

4. *Terminations.*

- (i) Any waiver or retention of rights by the Subcontractor under paragraphs B2, C1, or C2 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 Subcontractor 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 Subcontractor.
- (ii) Any waiver of the rights reserved in accordance with paragraph C2, as applied to particular inventions, may be terminated at the discretion of the Secretary or his designee, in whole or in part, if the Subcontractor fails to comply with the provisions set forth in paragraph C3 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 C4(i) or C4(ii) of this clause, the Subcontractor 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 C4(ii) shall be subject to the rights granted in paragraph C1 of this clause, and termination shall normally be partial in nature, requiring the Subcontractor to grant nonexclusive or partially exclusive licenses to responsible applicants upon terms reasonable under the circumstances.

5. *Effective Date of Waivers.*

Waivers 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 subcontract, on the effective date of the subcontract 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 subcontract, 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 Subcontractor elects to retain domestic rights pursuant to paragraph C2(i) of this clause, the Subcontractor shall have a domestic patent application filed on the invention within six (6) months after submission of the invention disclosure pursuant to paragraph E2(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 Subcontractor. For identified inventions waived to the Subcontractor, the Subcontractor shall have a domestic patent application on the invention filed within 6 months after the waiver has become effective. With respect to such inventions, the Subcontractor shall promptly notify the Patent Counsel of any decision not to file an application.
- 2. For each Subject Invention on which a patent application is filed by the Subcontractor, the Subcontractor shall:
 - (i) Within 2 months after the filing, or within 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 6 months after filing the application or within 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 2 months after a patent is issued on the application;
 - (iv) Not less than 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 Subcontract No. _____ (or Grant No. _____) awarded by the U.S. Department of Energy."

3. With respect to each Subject Invention in which the Subcontractor has elected pursuant to paragraph C2(ii) of this clause to retain the patent rights waived in specified foreign countries, or in which the Subcontractor has obtained a waiver of foreign rights on an identified invention:

- (i) The Subcontractor 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 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 E2(i) of this clause;
 - (b) Six 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 Subcontractor.
- (ii) The Subcontractor shall notify the Patent Counsel promptly of each foreign application filed and upon written request shall furnish an English version of the application without additional compensation.

E. *Invention Identification, Disclosures, and Reports.*

1. The Subcontractor shall establish and maintain active and effective procedures to ensure that Subject Inventions are promptly identified and timely disclosed. Those procedures shall include the maintenance of laboratory notebooks or equivalent records and any other records that are reasonably necessary to document the conception and/or the first actual reduction to practice of Subject Inventions, and records which show that the procedures for identifying and disclosing the inventions are followed. Upon request, the Subcontractor shall furnish the Contracting Officer a description of these procedures so that he may evaluate and determine their effectiveness.
2. The Subcontractor shall furnish the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) on a DOE-approved form:
 - (i) A written report containing full and complete technical information concerning each Subject Invention within 6 months after conception or first actual reduction to practice, whichever occurs first in the course of or under this subcontract, but in any event prior to any sale, public use or public disclosure of such invention known to the Subcontractor. The report shall identify the subcontract and inventor and shall be sufficiently complete in technical detail and appropriately illustrated by sketch or diagram to convey to one skilled in the art to which the invention pertains a clear understanding of the nature, purpose, operation, and to the extent known, the physical, chemical, biological, or electrical characteristics of the invention. The report should also include any election of foreign patent rights under paragraph C2(ii) of this clause and any election of rights under paragraph C2(i) of this clause. Any requests for greater rights shall be made within the period set forth in paragraph B2 of this clause. When an invention is reported under this paragraph E2(i), it shall be presumed to have been made in the manner specified in Section (a)(1) and (2) of 42 USC 5908 unless the

Subcontractor contends it was not so made in accordance with paragraph G2(ii) of this clause.

- (ii) Upon request, but not more than annually, interim reports on a DOE-approved form listing Subject Inventions and lower-tier subcontracts awarded containing a Patent Rights clause for that period and certifying that:
 - (a) The Subcontractor's procedures for identifying and disclosing Subject Inventions as required by this paragraph E have been followed throughout the reporting period;
 - (b) All Subject Inventions have been disclosed or that there are no such inventions;
 - (c) All lower-tier subcontracts containing a Patent Rights clause have been reported or that no such lower-tier subcontracts have been awarded; and
 - (iii) A final report on a DOE-approved form within 3 months after completion of the subcontract work listing all Subject Inventions and all lower-tier 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 lower-tier subcontracts containing a Patent Rights clause have been reported or that no such lower-tier subcontracts have been awarded.
3. The Subcontractor 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 subcontract except nontechnical personnel, such as clerical employees and manual laborers.
 4. The Subcontractor 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 Subcontractor 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 D1 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 subcontract, the Subcontractor 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 subcontract. In order that the patent disclosure of such information will not adversely affect the patent interests of DOE or the Subcontractor, 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 Subcontractor shall forfeit to the Government, at the request of the Secretary or his designee, all rights in any Subject Inventions which the Subcontractor fails to report to Patent Counsel (with notification by Patent Counsel to the Contracting Officer) within six months after the time the Subcontractor:

- (i) Files or causes to be filed a United States or foreign patent application thereon; or
 - (ii) Submits the final report required by paragraph E2(iii) of this clause, whichever is later.
2. However, the Subcontractor shall not forfeit rights in a Subject Invention if, within the time specified in I(i) or I(ii) of this paragraph G, the Subcontractor:
- (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 subcontract and delivers the same to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or
 - (ii) Contending that the invention is not a Subject Invention the Subcontractor 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 Subcontractor's fault or negligence.
3. Pending written assignment of the patent application 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 Subcontractor 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 Inventions.

H. *Examination of Records Relating to Inventions.*

- 1. The Contracting Officer or his authorized representative, until the expiration of 3 years after final payment under this subcontract, shall have the right to examine any books (including laboratory notebooks), records, documents, and other supporting data of the Subcontractor 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 Subcontractor relating to the conception or first actual reduction to practice of inventions in the same field of technology as the work under this subcontract to determine whether any such inventions are Subject Inventions, if the Subcontractor refuses or fails to:
 - (i) Establish the procedures of paragraph E1 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 Subcontractor of such a deficiency.

I. Withholding of Payment (Not Applicable to Lower-Tier Subcontracts).

1. Any time before final payment of the amount of this subcontract, DOE may, if it deems such action warranted, direct MRI to withhold payment until a reserve not exceeding \$50,000.00 or 5 percent of the amount of this subcontract, whichever is less, shall have been set aside if in DOE's opinion the Subcontractor fails to:
 - (i) Establish, maintain and follow effective procedures for identifying and disclosing Subject Inventions pursuant to paragraph E1 of this clause; or
 - (ii) Disclose any Subject Invention pursuant to paragraph E2(i) of this clause; or
 - (iii) Deliver the interim reports pursuant to paragraph E2(ii) of this clause; or
 - (iv) Provide the information regarding lower-tier subcontracts pursuant to paragraph J5 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 Subcontractor has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this clause.
3. Final payment under this subcontract shall not be made by MRI before the Subcontractor delivers to Patent Counsel all disclosures of Subject Inventions and other information required by E2(i) of this clause, the final report required by E2(ii) of this clause, and Patent Counsel has issued a patent clearance certification to the Contracting Officer.
4. DOE may, in its discretion, decrease or increase the sums withheld up to the maximum authorized above. If the Subcontractor is a nonprofit organization, the maximum amount that may be withheld under this paragraph shall not exceed \$50,000 or 1 percent of the amount of this subcontract, 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 subcontract. 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 subcontract.

J. Lower-tier Subcontracts.

1. For the purpose of this paragraph the term "contractor" means the party awarding a subcontract and the term "subcontractor" means the party being awarded a subcontract, regardless of tier.
2. The contractor shall include paragraph N hereof ("Patent Rights Provisions For Lower-tier Subcontractors Who Qualify as Small Business Firms or Nonprofit Organizations"), 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 firm or a domestic nonprofit organization. In all other subcontracts, regardless of tier, for experimental, developmental, demonstration or research work, the contractor shall include the Patent Rights clause of 41 CFR 9-9.107-5(a) or 41 CFR 9-9.107-6, as appropriate, modified to identify the parties. In the event of refusal by a subcontractor to accept this clause, or if in the opinion of the contractor this clause is inconsistent with DOE's patent policies, the contractor:

- (i) Shall promptly submit written notice to the Contracting Officer setting forth reasons for the subcontractor's refusal and other pertinent information which may expedite disposition of the matter; and
 - (ii) Shall not proceed with the subcontract without the written authorization of DOE via MRI.
3. Except as may be otherwise provided in this clause, the contractor shall not, in any subcontract or by using a subcontract as consideration therefore, acquire any rights in its subcontractors Subject Invention for the contractor's own use (as distinguished from such rights as may be required solely to fulfill the contractor'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 DOE be furnished to the contractor for transmission to DOE.
5. The contractor shall promptly notify DOE through MRI 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 DOE or MRI the contractor shall furnish him a copy of the subcontract.
6. The contractor 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 contractor hereby assigns to the Government all rights that the contractor would have to enforce the subcontractor's obligations for the benefit of the Government with respect to Subject Inventions. The contractor 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 Subcontractor at any time through the completion of this subcontract;
 - (i) Which the Subcontractor, 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 subcontract.
2. The Subcontractor 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 subcontract by or for the Government in research, development and demonstration work only.

3. The Subcontractor also agrees that upon written application by DOE, it will grant to responsible parties for purposes of practicing a subject of this subcontract, nonexclusive licenses under any Background Patent on terms that are reasonable under the circumstances. If, however, the Subcontractor 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 Subcontractor.
4. Notwithstanding the foregoing paragraph K3, the Subcontractor shall not be obligated to license any Background Patent if the Subcontractor 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 Subcontractor 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. *Reserved.*

M. *Limitation of Rights.*

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 subcontract with respect to Background Patents and the facilities license.

N. ***PATENT RIGHTS PROVISIONS FOR LOWER-TIER SUBCONTRACTORS WHO QUALIFY AS SMALL BUSINESS FIRMS OR NONPROFIT ORGANIZATIONS (OTHER THAN M&Os) (APRIL 1987).***

(A) *Definitions.*

1. "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code (USC) or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 USC 2321 et seq.).
2. "Subject invention" means any invention of the Subcontractor, conceived or first actually reduced to practice in the performance of work under this subcontract, provided that in the case of a variety of plant the date of determination (as defined in Section 44(d) of the Plant Variety Protection Act, 7 USC 240I(d)) must also occur during the period of subcontract performance.
3. "Practical application" means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.
4. "Made" when used in relation to any invention means the conception or first actual reduction to practice of such invention.

5. "Small business firm" means a small business concern as defined at Section 2 of Public Law 85-536 (15 USC 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standard for small business concerns involved in Government procurement, contained in 13 CFR 121.3-8, and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.
6. "Nonprofit organization" means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 USC 5019c) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 USC 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.
7. "Patent Counsel" means the Department of Energy (DOE) Patent Counsel assisting the DOE contracting activity.

(B) Allocation of Principal Rights.

1. The Subcontractor may retain the entire right, title, and interest throughout the world to each Subject Invention subject to the provisions of this clause and 35 USC 203. With respect to any Subject Invention in which the Subcontractor 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. (Reserved)

(C) Invention Disclosure, Election of Title and Filing of Patent Applications by the Subcontractor.

1. The Subcontractor will disclose each Subject Invention to the Patent Counsel within two months after the inventor discloses it in writing to the Subcontractor personnel responsible for patent matters. The disclosure to the Patent Counsel shall be in the form of a written report and shall identify the subcontract under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of disclosure of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale, or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the Patent Counsel, the Subcontractor will promptly notify the Patent Counsel of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Subcontractor.
2. The Subcontractor will elect in writing whether or not to retain title to any such invention by notifying the Patent Counsel within two years of disclosure to the Patent Counsel. However, in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by Patent Counsel to a date that is no more than sixty days prior to the end of the statutory period.
3. The Subcontractor will file its initial patent application on a Subject Invention to which it elects to retain title within one year after election of title or, if earlier, prior to the

end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Subcontractor will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

4. Requests for extension of the time for disclosure to the Patent Counsel, election, and filing, under paragraphs 1., 2., and 3. may, at the discretion of the Patent Counsel be granted.

(D) *Conditions When the Government May Obtain Title.*

The Subcontractor will convey to DOE, upon written request, title to any Subject Invention:

1. If the Subcontractor fails to disclose or elect title to the Subject Invention within the times specified in (C) above, or elects not to retain title; provided that the DOE may only request title within 60 days after learning of the failure of the Subcontractor to disclose or elect within the specified times;
2. In those countries in which the Subcontractor fails to file patent applications within the times specified in (C) above; provided, however, that if the Subcontractor has filed a patent application in a country after the times specified in (C) above but prior to its receipt of the written request of the Patent Counsel, the Subcontractor shall continue to retain title in that country; or
3. In any country in which the Subcontractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding on, a patent on a Subject Invention.

(E) *Minimum Rights to the Subcontractor and Protection of the Subcontractor's Right to File.*

1. The Subcontractor will retain a nonexclusive, royalty-free license throughout the world in each Subject Invention to which the Government obtains title except if the Subcontractor fails to disclose the Subject Invention within the times specified in (C) above. The Subcontractor's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Subcontractor is a part and includes the right to grant sublicenses of the same scope to the extent the Subcontractor was legally obligated to do so at the time the subcontract was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of the part of the Subcontractor's business to which the invention pertains.
2. The Subcontractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the Subject Invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR 404 and 10 CFR 781. This license will not be revoked in that field of use or the geographical areas in which the Subcontractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Subcontractor, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

3. Before revocation or modification of the license, DOE will furnish the Subcontractor a written notice of its intention to revoke or modify the license, and the Subcontractor will be allowed thirty days (or such other time as may be authorized by DOE for good cause shown by the Subcontractor) after the notice to show cause why the license should not be revoked or modified. The Subcontractor has the right to appeal, in accordance with 37 CFR 404 and 10 CFR Part 781, any decision concerning the revocation or modification of its license.

(F) Subcontractor Action to Protect Government's Interest.

1. The Subcontractor agrees to execute or to have executed and promptly deliver to the Patent Counsel all instruments necessary to:
 - (i) Establish or confirm the rights the Government has throughout the world in those Subject Inventions to which the Subcontractor elects to retain title, and
 - (ii) Convey title to DOE when requested under D. above and to enable the Government to obtain patent protection throughout the world in that Subject Invention.
2. The Subcontractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Subcontractor each Subject Invention made under this subcontract in order that the Subcontractor can comply with the disclosure provisions of (C) above and to execute all papers necessary to file patent applications on Subject Inventions and to establish the Government's rights in the Subject Inventions. The disclosure format should require, as a minimum, the information required by subparagraph (C)1 above. The Subcontractor shall instruct such employees through the employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to United States or foreign statutory bars.
3. The Subcontractor will notify the Patent Counsel of any decision not to continue prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.
4. The Subcontractor agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a Subject Invention, the following statement "This invention was made with Government support under (identify the subcontract awarded by Midwest Research Institute, Solar Energy Research Institute Division under identify DOE contract number) awarded by the Department of Energy. The Government has certain rights in this invention."
5. The Subcontractor agrees to:
 - (i) Upon request, provide a report prior to the close-out of the subcontract listing all Subject Inventions or stating that there were none;

- (ii) Provide, upon request, a copy of the patent application, filing date, serial number and title, patent number and issue date for any Subject Invention in any country in which the Subcontractor has applied for a patent; and
- (iii) Provide, upon request, but not more than annually, listing of all Subject Inventions which were disclosed to DOE during the applicable reporting period.

(G) *Lower-Tier Subcontracts.*

1. The Subcontractor will include this clause, suitably modified to identify the parties, in all lower-tier subcontracts, regardless of tier, for experimental, developmental or research work to be performed by a small business firm or a domestic nonprofit organization. The lower-tier subcontractor will retain all rights provided for the Subcontractor in this clause, and the Subcontractor will not, as part of the consideration for awarding the lower-tier subcontract, obtain rights in the lower-tier subcontractor's Subject Inventions.
2. The Subcontractor will include in all other lower-tier subcontracts, regardless of tier, for experimental, developmental, demonstration or research work the patent rights clause of 41 CFR 9-9.107-5(a) or 41 CFR 9-9.107-6 as appropriate, modified to identify the parties.
3. In the case of a lower-tier subcontract at any tier, when the prime award with DOE was a contract (but not a grant or cooperative agreement) DOE, the lower-tier subcontractor, and the Subcontractor agree that the mutual obligations of the parties created by this clause constitute a contract between the lower-tier subcontractor and DOE with respect to those matters covered by this clause, provided however that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (J) of this clause.

(H) *Reporting on Utilization of Subject Inventions.*

The Subcontractor 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 Subcontractor 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 Subcontractor, and such other data and information as DOE may reasonably specify. The Subcontractor 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 (J) of this clause. As required by 35 USC 202(c)(5),

DOE agrees it will not disclose such information to persons outside the Government without permission of the Subcontractor.

(I) *Preference for United States Industry.*

Notwithstanding any other provisions of this clause, the Subcontractor 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 Subcontractor 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.

(J) *March-In Rights.*

The Subcontractor 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 Subcontractor, 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 Subcontractor, 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 Subcontractor 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 Subcontractor, 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 Subcontractor, assignee, or licensees; or
4. Such action is necessary because the agreement required by paragraph (I) 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.

(K) *Special Provisions for Subcontracts with Nonprofit Organizations.*

If the Subcontractor is a nonprofit organization it agrees that:

1. Rights to a Subject Invention in the United States may not be assigned without the approval of DOE, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the Subcontractor;
2. The Subcontractor will share royalties collected on a Subject Invention with the inventor, including Federal employee co-inventors (when DOE deems it appropriate) when the Subject Invention is assigned in accordance with 35 USC 202(e) and 37 CFR 401.10;
3. The balance of any royalties or income earned by the Subcontractor with respect to Subject Inventions, after payment of expenses (including payments to inventors) incidental to the administration of Subject Inventions, will be utilized for the support of scientific research or education; and
4. It will make efforts that are reasonable under the circumstances to attract licensees of Subject Inventions that are small business firms and that it will give a preference to a small business firm when licensing a Subject Invention if the Subcontractor determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided that the Subcontractor is also satisfied that the small business firm has the capability and

resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Subcontractor. However, the Subcontractor agrees that the Secretary of Commerce may review the Subcontractor's licensing program and decisions regarding small business applicants, and the Subcontractor will negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when the Secretary of Commerce's review discloses that the Subcontractor could take reasonable steps to implement more effectively the requirements of this paragraph (K)4.

(L) *Communications.*

The DOE central point of contact for communications or matters relating to this clause is the Patent Counsel.

CLAUSE 2 - AUTHORIZATION AND CONSENT 41 CFR 9-9.102-2

(Note: This clause shall apply to all subcontractors and all lower-tier subcontractors.)

The Government has given its authorization and consent for all use and manufacture of any invention described in and covered by a patent of the United States in the performance of this subcontract or any part hereof or any amendment hereto or any lower-tier subcontract hereunder.

CLAUSE 3 - NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT -- 41 CFR 9-9.104(b)

(Note: This clause shall apply to all subcontractors and all lower-tier subcontractors, if the amount of the subcontract exceeds \$10,000.)

- A. The Subcontractor shall report to the Government through MRI promptly and in reasonable written detail each notice or claim of patent or copyright infringement based on the performance of this subcontract of which the Subcontractor has knowledge.
- B. In the event of any claim or suit against MRI or the Government on account of any alleged patent or copyright infringement arising out of the performance of this sub-contract or out of the use of any supplies furnished or work or services performed hereunder, the Subcontractor shall furnish to MRI or the Government when requested by MRI or the Government all evidence and information in possession of the Subcontractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Subcontractor has agreed to indemnify the Government or MRI.
- C. This article shall be included in all lower-tier subcontracts.

CLAUSE 4 - RIGHTS IN TECHNICAL DATA (LONG FORM) (MODIFIED) -- 41 CFR 952.227-75

A. *Definitions.*

- 1. "Technical data" means recorded information, regardless of form or characteristic, of a scientific or technical nature. It may, for example, document research, experimental, developmental, or demonstration, or engineering work, or be usable or used to define a design or process, or to procure, produce, support, maintain, or operate material. The data may be graphic or pictorial delineations in media such as drawings or photographs, text in

specifications or related performance or design type documents or computer software (including computer programs, computer software data bases, and computer software documentation).

Examples of Technical Data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identification, and related information. Technical Data as used herein do not include financial reports, cost analyses, and other information incidental to subcontract administration.

2. "*Proprietary data*" means Technical Data which embody trade secrets developed at private expense, such as design procedures or techniques, chemical composition of materials, or manufacturing methods, processes, or treatments, including minor modifications thereof, provided that such data:
 - (i) Are not generally known or available from other sources without obligation concerning their confidentiality;
 - (ii) Have not been made available by the owner to others without obligation concerning their confidentiality; and
 - (iii) Are not already available to the Government or MRI without obligation concerning their confidentiality.
3. "*Contract data*" means Technical Data first produced in the performance of this subcontract, Technical Data which are specified to be delivered under this subcontract, Technical Data that may be called for under the *Additional Technical Data Requirements* clause of this subcontract, if any, or Technical Data actually delivered in connection with this subcontract.
4. "*Unlimited Rights*" means rights to use, duplicate, or disclose Technical Data, in whole or in part, in any manner and for any purpose whatsoever, and permit others to do so.
5. "*Government*" means the Government of the United States of America.
6. "*Subcontract*" means this subcontract between the Subcontractor and the Midwest Research Institute (MRI).
7. "*Know-how*" means unpatented technical information, assistance, training or expertise including drawings, designs, specifications, blueprints, or manuals owned or controlled by the Subcontractor.
8. "*Protected Hybrid Vehicle Information*" means Technical Data or commercial or financial data first produced in the performance of this subcontract which, if it had been obtained from and first produced by a Non-Federal party, would be a trade secret or commercial or financial information that is privileged or confidential under the meaning of 5 U.S.C. 552 (b) (4), and which is marked as being Protected Hybrid Vehicle Information by a party to this subcontract.

B. Allocation of rights.

1. The Government shall have:
 - (i) Unlimited Rights in Contract Data except as otherwise provided below with respect to Proprietary Data or Protected Hybrid Vehicle Information;
 - (ii) The right to remove, cancel, correct or ignore any marking not authorized by the terms of this subcontract on any Technical Data furnished hereunder, if in response to a

written inquiry by DOE or by DOE through MRI concerning the proprietary of the markings, the Subcontractor fails to respond thereto within sixty (60) days or fails to substantiate the propriety of the markings. In either case, DOE or DOE through MRI will notify the Subcontractor of the action taken;

- (iii) No rights under this subcontract in any Technical Data which are not Contract Data, except as otherwise specified in this clause.
2. The Subcontractor shall have:
- (i) The right to withhold Proprietary Data in accordance with the provisions of this clause; and
 - (ii) The right to use for its private purposes, subject to patent, security, or other provisions of this subcontract, Contract Data it first produces in the performance of this subcontract, provided the data requirements of this subcontract have been met as of the date of the private use of such data. The Subcontractor agrees that to the extent it receives or is given access to Proprietary Data or other technical, business, or financial data in the form of recorded information from DOE or a DOE Contractor or subcontractor, the Subcontractor shall treat such data in accordance with any restrictive legend contained thereon unless use is specifically authorized by prior written approval of DOE through MRI.
 - (iii) The right to mark as Protected Hybrid Vehicle Information, any data first produced in the performance of this subcontract by its employees, in accordance with this clause.
3. Nothing contained in this Rights in Technical Data (Long Form) clause shall imply a license to the Government under any patent or be construed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.

C. Copyrighted Material.

- 1. The Subcontractor may establish a claim to statutory copyright in any Contract Data first produced in the performance of the subcontract. The Government reserves for itself and others acting on its behalf a royalty free, non-exclusive, irrevocable, world-wide, license for Governmental purposes to publish, distribute, translate, duplicate, exhibit and perform any such data copyrighted by the Subcontractor, except that for data marked Protected Hybrid Vehicle Information pursuant to paragraph K of this clause, the reserved Government license shall be subject to the restrictions set forth in paragraph K.2 of this clause.
- 2. The Subcontractor agrees not to include in the Technical Data delivered under this subcontract any material copyrighted by the Participant and not to knowingly include any material copyrighted by others, without first granting or obtaining at no cost a license therein for the benefit of the Government of the same scope as set forth in Paragraph C.1 above. If such royalty-free license is unavailable and the Subcontractor nevertheless determines that such copyrighted material must be included in the Technical Data to be delivered, rather than merely incorporated therein by reference, the Subcontractor shall obtain the written authorization of the Government through MRI to include such copyrighted material in the Technical Data prior to its delivery.

D. Subcontracting.

It is the responsibility of the Subcontractor to obtain from its lower-tier subcontractors Technical Data and rights therein, on behalf of the Government, necessary to fulfill the Subcontractor's obligations to

the Government with respect to such data. In the event of refusal by a lower-tier subcontractor to accept a clause affording the Government such rights, the Subcontractor shall:

1. Promptly submit written notice to the Government through MRI setting forth reasons for the lower-tier subcontractor's refusal and other pertinent information which may expedite disposition of the matter;
2. Not proceed with the lower-tier subcontract without the written authorization of the Government through MRI; and
3. As used in this Rights in Technical Data (Long Form) clause, the term "Lower-Tier Subcontractor" includes any person or entity responsible for fulfilling the Subcontractor's obligations to the Government with respect to Technical Data.

E. *Withholding of Proprietary Data.*

Notwithstanding the inclusion of the *Additional Technical Data Requirements* clause in this subcontract or any provision of this subcontract specifying the delivery of Technical Data, the Subcontractor may withhold Proprietary Data from delivery, provided that the Participant furnishes in lieu of any such Proprietary Data so withheld Technical Data disclosing the source, size, configuration, mating and attachment characteristics, functional characteristics, and performance requirements ("Form, Fit, and Function" data, e.g., specification control drawings, catalog sheets, envelope drawings, etc.), or a general description of such Proprietary Data where "Form, Fit, and Function" data are not applicable. The Government shall acquire no rights to any Proprietary Data so withheld except that such data shall be subject to the "inspection rights" provisions of Paragraph F, the "Limited Rights in Proprietary Data" provisions of Paragraph G, and, if included, the "Subcontractor Licensing" provisions of Paragraph H and/or the "Commercialization of Hybrid Vehicle Technology" provisions of Paragraph I.

F. *Inspection Rights.*

Except as may be otherwise specified in this subcontract for specific items of Proprietary Data, which are not subject to this paragraph, the Government's and MRI's representatives, at all reasonable times up to three (3) years after final payment under this subcontract, may inspect (but not duplicate or remove) at the Subcontractor's facility any Proprietary Data withheld under Paragraph E for the purpose of verifying that such data properly fell within the withholding provisions of Paragraph E or for evaluating work performance.

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G. *Limited Rights in Proprietary Data.*

Except as may be otherwise specified in this subcontract as Technical Data which are not subject to this paragraph, the Subcontractor shall, upon written request from MRI or from the Government at any time prior to three (3) years after final payment under this subcontract, promptly deliver to the Government or MRI any "Proprietary Data" withheld pursuant to Paragraph E of the *Rights in Technical Data (Long Form)* clause of this subcontract. The following legend and no other is authorized to be affixed on any "Proprietary Data" delivered pursuant to this provision, provided the "Proprietary Data" meets the conditions for initial withholding under Paragraph E of the *Rights in Technical Data (Long Form)* clause. The Government and MRI will thereafter treat the "Proprietary Data" in accordance with such legend.

LIMITED RIGHTS LEGEND

This "Proprietary Data," furnished under "Subcontract No. _____" with MRI under Prime Contract No. DE-AC02-83CH10093 with the U.S. Department of Energy may be duplicated and used by the Government and

MRI with the express limitations that the "Proprietary Data" may not be disclosed outside the Government and MRI or be used for purposes of manufacture without prior permission of the Subcontractor, except that further disclosure or use may be made solely for the following purposes:

1. This "Proprietary Data" may be disclosed for evaluation purposes under the restriction that the "Proprietary Data" be retained in confidence and not be further disclosed;

This legend shall be marked on any reproduction of this data in whole or in part.

H. *Subcontractor licensing.*

Except as may be otherwise specified in this subcontract as Technical Data not subject to this paragraph, the subcontractor agrees that upon written application by DOE, it will grant to the Government and responsible third parties a nonexclusive license in any Contract Data which are Proprietary Data or copyrighted data and it will grant to responsible third parties a nonexclusive license in any Contract Data which are Protected Hybrid Vehicle Information, for purposes of practicing a subject of this subcontract, on terms and conditions reasonable under the circumstances including appropriate provisions for confidentiality; provided, however, the Subcontractor shall not be obligated to license any such data if the Subcontractor demonstrates to the satisfaction of the Head of the Agency or designee that:

1. Such data are not essential to the manufacture or practice of hardware designed or fabricated, or processes developed, under this subcontract;
2. Such data, in the form of results obtained by their use, have a commercially competitive alternative available or readily introducible from one or more other sources;
3. ⁰¹² Such data, in the form of results obtained by their use, are being or will be supplied within three (3) years after subcontract completion by the Subcontractor or its licensees in sufficient quantity and at reasonable prices to satisfy market needs, or the Subcontractor or its licensees have taken effective steps or within a reasonable time are expected to take effective steps to so supply such data in the form of results obtained by its use; or
4. Such data, in the form of results obtained by their use, can be furnished by another firm skilled in the art of manufacturing items or performing processes of the same general type and character necessary to achieve the subcontract results.

I. *Commercialization of Hybrid Vehicle Technology.*

1. The Subcontractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell hybrid vehicle technology in the United States unless such person agrees that any embodiment of hybrid vehicle technology 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 Subcontractor 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.

2. For the purposes of this section, technology is defined as the hybrid propulsion system developed under this subcontract, the equipment to be provided with the sale of the technology or necessary to achieve the performance under the license of the technology; this may include equipment in addition to that which is included in this subcontract.

J. *Data Available to the Public.*

The Subcontractor agrees that the following types of Technical Data are not considered to be proprietary and shall be provided to the Government and MRI when required by this subcontract without any claim that the data are proprietary or that the data are to be protected as Protected Hybrid Vehicle Information. DOE and MRI agree that these types of Technical Data are considered necessary to be publicly available.

The parties agree, however, that notwithstanding the following list of types of data, nothing precludes the Government and MRI from seeking delivery of additional Technical Data in accordance with this subcontract, or from making publicly available additional non-proprietary or non-protected Technical Data, nor does the following list constitute any admission by the Government or MRI that Technical Data not on the list is proprietary.

1. A "black box" diagram of typical operating configurations showing at least the major subsystems of the overall hybrid vehicle concept under development, sufficient to provide a general understanding of its proposed operation in contrast to other hybrid vehicle approaches (an example of such diagrams is attached as Exhibit 1 to this Appendix);
2. Annual status of, and changing projections regarding, on-road and total energy efficiency of the hybrid vehicle under development;
3. Annual status of, and changing projections regarding, composition and flow rates of materials and energy entering and leaving the specific hybrid vehicle under development. This would include, for example, (a) the composition and consumption of fuels and other energy streams provided for the propulsion of the vehicle, and (b) quantitative information on the composition and flow of exiting combustion products;
4. Annual status of, and changing projections regarding, infrastructure capabilities which are to be provided by others but which are necessary for the planned operation of the hybrid vehicle under development; the breadth of these observations should include fuel and other energy resource availability, refueling/recharging services, and vehicle maintenance/emergency road services.
5. General description of program deliverables, reports and hardware, articles and presentations.
6. Goals for hybrid components, systems, and vehicle performance, e.g., fuel efficiency, emissions, general customer attributes, 0-60 mph time, reliability, etc.
7. The general timing and major milestones dates for the subcontract.
8. The Subcontractor's lower-tier subcontractors' (team members or partners) names.
9. The total dollar amount of the program including the total dollar amount of lower-tier subcontractors (team members or partners).
10. The approximate number of personnel, key staff members' names and major facilities committed to the subcontract.

11. A Work-Breakdown Structure at "high" level with team members names under the major program areas for the subcontract.
12. Any EPA mileage and emissions data this is already available to the public concerning a Ford Motor Company product.
13. All acceleration performance, fuel economy and emissions values for overall hybrid propulsion system to include both predictions and measurements.
14. General description of the Subcontractor's past efforts and experience in hybrid vehicles.
15. The summary for the Monthly Technical Progress Reports.
16. The bottom line dollar amounts for the Cost Plan and the Monthly Cost Management Reports.
17. The Small Business and Small Disadvantaged Business Subcontracting Plan Reports.
18. The major review summaries for each Phase Technical Report. These major review summaries for each Phase Technical Report should be approximately 20 to 30 pages in length and include all appropriate information to summarize the results and progress achieved under the phase of the subcontract.
19. The major review summary for the Final Technical Report. This major review summary should be approximately 200 pages or more in length and include all appropriate information to summarize the results and progress achieved under the entire subcontract.
20. The definitized subcontract's schedule language (except for the indirect rates contained in the article entitled "Indirect Rates"), Appendix A - Statement of Work, Appendix MRI-B -- Standard Terms and Conditions, Appendix MRI/Ford-C -- Intellectual Property Provisions, Appendix MRI-D -- Clauses for Subcontracts in Excess of \$100,000, Appendix MRI-E -- Clauses for Subcontracts in Excess of \$500,000, and Appendix F -- Small Business and Small Disadvantaged Business Subcontracting Plan. The intellectual property provisions of any lower-tier subcontract (contractual instrument) and the U.S. competitiveness provisions.
21. Other information mutually agreed upon by MRI, DOE, and the Subcontractor.

K. Protected Hybrid Vehicle Information.

1. Except for items of data listed in paragraph j of this clause, the Subcontractor may claim as Protected Hybrid Vehicle Information any data first produced in the performance of this subcontract which meets the definition set forth in paragraph A.8 of this clause.
2. Any such claimed Protected Hybrid Vehicle Information will be clearly marked as "Protected Hybrid Vehicle Information," will be treated as such, and, except as otherwise provided herein, will not be published, disseminated or disclosed to others outside the Government and MRI, by the Government and MRI for a period, as approved by DOE, of five (5) years after completion of this subcontract, without the prior written authorization of the Subcontractor. The marking shall include the following legend and such other restrictions or limitations on use or disclosure as may be applicable or appropriate. *The Government reserves the right to ^{at any time} challenge the marking of any data as Protected Hybrid Vehicle Information.*

PROTECTED HYBRID VEHICLE INFORMATION

This Protected Hybrid Vehicle Information was produced under "Subcontract No. ZCB-3-13032-02" with MRI under Prime Contract No. DE-AC02-83CH10093 with the U.S. Department of Energy and may not be published, disseminated or disclosed to others by the Government and MRI until five (5) years after completion of this subcontract, unless express written authorization is obtained from the Subcontractor. Upon expiration of the period of protection set forth in this legend, the Government shall have Unlimited Rights in this data. This legend shall be marked on any reproduction of this data, in whole or in part.

3. Any such marked Protected Hybrid Vehicle Information may be disclosed under obligations of confidentiality for the following purposes:
 - (i) This "Protected Hybrid Vehicle Information" may be disclosed for evaluation purposes under the restriction that the "~~Proprietary Data~~" be retained in confidence and not be further disclosed;
Protected Hybrid Vehicle Info
4. The Subcontractor shall have the right to license such Protected Hybrid Vehicle Information or include such Protected Hybrid Vehicle Information in a license with other technology developed under this Hybrid Vehicle Program and, in accordance with Paragraph H of this clause, agrees to license such Protected Hybrid Vehicle Information to responsible third parties. Such licenses shall include terms and conditions that are reasonable under the circumstances, including obligations of confidentiality.
5. The obligations of confidentiality and restrictions on publication and dissemination shall end for any Protected Hybrid Vehicle Information:
 - (i) At the end of the protected period, as indicated in the Legend, i.e., five (5) years after completion of this subcontract;
 - (ii) If the data becomes publicly known or available from other sources without a breach of the obligations of confidentiality with respect to the Protected Hybrid Vehicle Information;
 - (iii) If the same data is independently developed by someone who did not have access to the Protected Hybrid Vehicle Information and such independently developed data is made available without obligations of confidentiality; or
 - (iv) If the Subcontractor disseminates or authorizes another to disseminate such data without obligations of confidentiality.

CLAUSE 5 - ADDITIONAL TECHNICAL DATA REQUIREMENTS (APR 1984) - 48 CFR 952.227-73

(Note: This clause shall apply to all subcontracts and lower-tier subcontracts.)

- A. In addition to the Technical Data specified elsewhere in this subcontract to be delivered, MRI or the Government may at any time during the subcontract performance or within one year after final payment call for the Subcontractor to deliver any Technical Data first produced or specifically used in the performance of this subcontract except Technical Data pertaining to items of standard ~~Commercial~~ design. *or future*
- B. The provisions of the clause entitled, "Rights in Technical Data" included in this subcontract are applicable to all Technical Data called for under this Additional Technical Data Requirements clause. Accordingly, nothing contained in this clause shall require the Subcontractor to actually deliver any Technical Data, the delivery of which is excused by paragraph E. of the Rights in Technical Data clause.
- C. When Technical Data are to be delivered under this clause, the Subcontractor will be compensated for appropriate costs for converting such data into the prescribed form for reproduction, and for delivery.

CLAUSE 6 - REPORTING OF ROYALTIES 41 CFR 9-9.110(c)

(Note: This clause shall apply to all subcontracts and lower-tier subcontracts that meet the requirements contained in the clause.)

If this subcontract is in an amount which exceeds \$10,000 and if any royalty payments are directly involved in the subcontract or are reflected in the subcontract price to MRI, the Subcontractor agrees to report in writing to the Government Patent Counsel through MRI during the performance of this subcontract and prior to its completion or final settlement, the amount of any royalties or other payments paid or to be paid by it directly to others in connection with the performance of this subcontract together with the names and addresses of licensors to whom such payments are made and either the patent numbers involved or such other information as will permit the identification of the patents or other basis on which the royalties are to be paid. The approval of DOE or MRI of any individual payments or royalties shall not stop MRI or the Government at any time from contesting the enforceability, validity or scope of, or title to, any patent under which a royalty or payments are made.