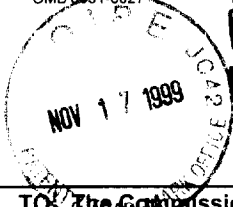


12-06-1999



101215374



11-17-99

### RECORDATION FORM COVER SHEET TRADEMARKS ONLY

To: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

#### Submission Type

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

#### Conveyance Type

- Assignment  License
- Security Agreement  Nunc Pro Tunc Assignment
- Merger  Effective Date  
Month Day Year
- Change of Name
- Other

#### Conveying Party

Mark if additional names of conveying parties attached

Execution Date  
Month Day Year

Name

Formerly

- Individual  General Partnership  Limited Partnership  Corporation  Association

Other

Citizenship/State of Incorporation/Organization

#### Receiving Party

Mark if additional names of receiving parties attached

Name

DBA/AKA/TA

Composed of

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

- Individual  General Partnership  Limited Partnership

- Corporation  Association

Other

Citizenship/State of Incorporation/Organization

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 should be attached. (Designation must be a separate document from Assignment.)

#### FOR OFFICE USE ONLY

12/03/1999 VBROWN 00000115 1847876

01 FC:481 40.00 CP  
02 FC:482 50.00 CP

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

Mail documents to be recorded with required cover sheet(s) information to:  
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

TRADEMARK

REEL: 001995 FRAME: 0386

0000087110  
12/03/1999  
Total:

**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)

**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. #

**Trademark Application Number(s) or Registration Number(s)**

Mark if additional numbers attached

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

**Trademark Application Number(s)**

**Registration Number(s)**

**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 account.)  
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.

Gayle E.W. Orman

11/17/99

Name of Person Signing

Signature

Date Signed

## INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT (this "Agreement") is made and entered into as of November 10, 1998 by the MANTECH COMPANIES (as defined on Schedule I hereto) (each a "Borrower" and collectively, the "Borrowers"), in favor of FIRST UNION COMMERCIAL CORPORATION, a North Carolina corporation ("First Union"), acting in its capacity as Collateral/Documentation Agent under the hereinafter referenced Loan Agreement (the "Collateral/Documentation Agent").

### WITNESSETH:

To secure repayment of the Loan, as such term is defined in a certain Amended and Restated Business Loan and Security Agreement dated as of November 10, 1998 (as amended from time to time, the "Loan Agreement"), by and among First Union, Mellon Bank, N.A., a national banking association, PNC Bank, National Association, a national banking association (each a "Lender" and collectively, the "Lenders") and the Borrowers, plus all interest, fees and other charges payable in connection therewith, which Loan is evidenced by the Notes (as defined in the Loan Agreement); and also to secure any other indebtedness or liability of any Borrower to any Lender, direct or indirect, joint, several, joint and several, absolute or contingent, due or to become due or now existing or hereafter created or arising, including without limitation all future advances or loans which may be made at the option of the Lenders pursuant to the Loan Agreement or otherwise in connection with the Loan (all of the foregoing being herein collectively referred to as the "Indebtedness"), each Borrower hereby grants to the Collateral/Documentation Agent, for the ratable benefit of the Lenders, a security interest in all of each Borrower's right, title and interest in and to the following (the "Collateral"):

(a) all of each Borrower's patents, trademarks, trademark registrations, tradenames, service marks, mask works, copyrights, licenses (to the extent assignable), patent applications, service mark applications, trademark applications and mask work application and other intellectual property, which, in each case, are owned by such Borrower and are now or hereafter filed with the United States Patent and Trademark Office, or, to the extent applicable, any similar office or agency of any state, territory or possession of the United States or any similar office or agency of any other country, or used in the United States, any state, territory or possession thereof or any other country, including, without limitation, the patents, trademarks, trademark registrations, tradenames, trademark applications, service marks, mask works, copyrights, licenses (to the extent assignable) and other intellectual property listed on Schedule 2.0 attached hereto and made a part hereof, and (i) any and all reissues, renewals, extensions, continuations, continuations-in-part and divisions thereof; (ii) any and all income, royalties, damages and payments now or hereafter due or payable with respect thereto, including, without limitation, payments under all licenses entered into in connection therewith and damages

and payments for past or future infringement thereof; (iii) the right to sue for past, present and future infringement thereof; and (iv) any and all rights corresponding thereto throughout the world (all of the foregoing patents, trademarks, trademark registrations, tradenames, trademark applications, service marks, mask works, copyrights, licenses (to the extent assignable), and other intellectual property, together with all other items described in clauses (i) - (iv) of this subparagraph (a), are sometimes hereinafter referred to, either individually or collectively, as the "Intellectual Property"); and

(b) the goodwill of each Borrower's business connected with and symbolized by the Intellectual Property.

In connection with the security interest hereby granted and executed, the Borrowers represent, warrant, covenant and agree as follows:

1. License.

(a) Grant of License to Collateral/Documentation Agent. Each Borrower hereby grants to the Collateral/Documentation Agent a non-exclusive, assignable right and license (i) under the Intellectual Property, to use such Intellectual Property following the occurrence of an Event of Default (as defined in Section 9 of this Agreement); and (ii) under any license agreements held by the Borrower with respect to Intellectual Property owned by any person or entity other than such Borrower (to the extent permitted under such agreements), to sell Collateral bearing any such Intellectual Property following the occurrence of an Event of Default to the extent that such license is reasonably necessary to permit or to facilitate the collection of any accounts of any Borrower after an Event of Default, or the disposition of any Collateral after an Event of Default. The right and license granted pursuant to this subparagraph (the "License") shall not require payment by the Collateral/Documentation Agent or any Lender of any royalty or other payments or fees, and the permitted use by the Collateral/Documentation Agent thereunder (i) shall be worldwide; and (ii) shall be limited only by those restrictions to which the particular Borrower is subject pursuant to the terms of the Intellectual Property.

(b) Term of License. The term of the License (the "License Term") shall continue until the earlier of (i) the expiration of all of the Intellectual Property, or (ii) payment in full of all Indebtedness and the termination of all commitments under the Loan Documents (as defined in the Loan Agreement); or (iii) disposition of all Collateral and any proceeds thereof in connection with the enforcement of the Collateral/Documentation Agent's and/or Lenders' remedies under the Collateral documents and application of the proceeds of such disposition to the satisfaction of the Indebtedness.

2. Restrictions on Future Agreements. Until payment in full of the Indebtedness and termination of all commitments under the Loan Documents, no

Borrower will, without the Collateral/Documentation Agent's prior written consent (a) pledge or further encumber its interest in the Collateral or any part thereof; or (b) enter into any other contract or agreement which contains any term, covenant or provision that may restrict or inhibit the Collateral/Documentation Agent's right to sell or otherwise dispose of the Collateral or any part thereof (other than normal and customary anti-assignment provisions contained in license agreements) after the occurrence of an Event of Default.

3. New Intellectual Property. The Borrowers represent and warrant that the Intellectual Property listed on Schedule 2.0 constitute all of the registered patents, trademarks, tradenames, service marks, mask works, copyrights, licenses, patent applications, service mark applications, trademark applications and mask work application and other intellectual property which are, as of the date hereof, owned by or are pending on behalf of any Borrower in the United States or any state of the United States. If, before the payment in full of the Indebtedness, and termination of all commitments under the Loan Documents, any Borrower shall (i) obtain any registration or apply for any registration after the date hereof in the United States Patent and Trademark Office or in any similar office or agency of a state, territory or possession of the United States, or obtain rights to any patents, trademarks, trademark registrations, tradenames, service marks, mask works, copyrights, licenses and other intellectual property used in the United States or any state, territory or possession thereof, or (ii) become entitled to the benefit of any patents, trademarks, trademark registrations, tradenames, service marks, mask works, copyrights, licenses, patent applications, service mark applications, trademark applications and mask work application and other intellectual property in the United States or any state, territory or possession thereof, then, in any such event, the provisions of Section 1 shall automatically apply thereto and the Borrowers shall give to the Collateral/Documentation Agent written notice thereof. The Borrowers hereby authorize the Collateral/Documentation Agent to modify this Agreement by amending Schedule 2.0 to include any such future patents, trademarks, trademark registrations, tradenames, service marks, mask works, copyrights, licenses, patent applications, service mark applications, trademark applications and mask work application and other intellectual property that are Intellectual Property, as applicable.

4. Additional Representations and Warranties. The Borrowers hereby, jointly and severally, represent, warrant, covenant and agree that:

(a) Except as otherwise expressly provided herein or in the Loan Agreement, each Borrower is and will continue to be the owner of all of its right, title and interest in and to the Collateral so long as the Intellectual Property shall continue in force, free from any lien in favor of any person or entity.

(b) Each Borrower has the full right, power and authority to grant the security interest in the Collateral made hereby.

(c) No Borrower has made any previous assignment, transfer or agreements in conflict herewith or constituting a present or future assignment, transfer or encumbrance of any of the Collateral.

(d) Except as set forth on Schedule 3 hereto, to the Borrower's knowledge, no material infringement or unauthorized use presently is being made of any Intellectual Property which would materially adversely affect the fair market value of the Collateral or the benefits of this Agreement granted to the Collateral/Documentation Agent, including, without limitation, the validity, priority or perfection of the security interest granted herein or the remedies of the Collateral/Documentation Agent hereunder, and the Borrowers will continue to maintain reasonable monitoring and enforcement practices which adequately protect the Collateral.

5. Intentionally Deleted.

6. The Collateral/Documentation Agent's Right to Maintain Quality. The Borrowers agree that from and after the occurrence of an Event of Default, the Collateral/Documentation Agent shall have the right to establish such additional product quality controls as the Collateral/Documentation Agent, in its judgment, may deem necessary to assure maintenance of the quality of products sold by any Borrower under the Intellectual Property. The Borrowers agree not to sell or assign any of their interest in, or to grant any license under, any Intellectual Property in contravention of any of the terms, covenants or conditions set forth in the Loan Agreement; it being understood and agreed that the Intellectual Property constitutes "Collateral", as such term is defined in the Loan Agreement.

7. Duties of the Borrower. The Borrowers shall (i) prosecute diligently any "Material Intellectual Property" that is part of the Intellectual Property pending as of the date hereof or thereafter until payment in full of the Indebtedness and termination of all commitments under the Loan Documents; (ii) make application on all Material Intellectual Property, as appropriate; (iii) preserve and maintain all rights in Material Intellectual Property; (iv) not abandon any right to file an application for any Material Intellectual Property; and (v) not abandon any Material Intellectual Property. Any expenses incurred in connection with the applications referred to in this Section 7 shall be borne by the Borrowers. For purposes hereof, "Material Intellectual Property" shall mean any and all patents, trademarks, tradenames, service marks, mask works and/or copyrights that are necessary for the material business operations of any Borrower.

If any Borrower fails to comply with any of the foregoing duties, the Collateral/Documentation Agent may so comply in such Borrower's name to the extent permitted by law, but at the Borrowers' expense, and the Borrowers hereby agree to reimburse the Collateral/Documentation Agent in full for all expenses, including the reasonable fees and disbursements of attorneys and paralegals (including charges for inside

counsel) incurred by the Collateral/Documentation Agent in protecting, defending and maintaining the Collateral and/or the Collateral/Documentation Agent's security interest therein.

In the event that any Borrower shall fail to pay when due any fees required to be paid by it hereunder, or shall fail to discharge any lien or encumbrance prohibited hereby, or shall fail to comply with any other duty hereunder, the Collateral/Documentation Agent may, but shall not be required to, pay, satisfy, discharge or bond the same for the account of such Borrower, and all moneys so paid out shall be Indebtedness of the Borrower repayable on demand, with interest after demand at the rate of two percent (2%) per annum in excess of the highest applicable per annum rate of interest payable pursuant to the Notes.

The Borrower shall take all action necessary to preserve and maintain the validity, perfection and first priority of the Collateral/Documentation Agent's security interest granted herein in the Collateral.

8. The Secured Party's Right to Sue. From and after the occurrence of an Event of Default, the Collateral/Documentation Agent shall have the right, but shall in no way be obligated, to bring suit in its own name to enforce the Collateral (or its security interest therein), and any licenses thereunder, and if the Collateral/Documentation Agent shall commence any such suit, each Borrower shall, at the request of the Collateral/Documentation Agent, do any and all lawful acts and execute any and all proper documents required by the Collateral/Documentation Agent in aid of such enforcement, and the Borrower shall indemnify and upon demand, promptly reimburse the Collateral/Documentation Agent for all reasonable costs and expenses incurred by the Collateral/Documentation Agent in the exercise of its rights under this Section 8.

9. Default; Remedies.

(a) For purposes of this Agreement, each of the following shall constitute an "Event of Default" hereunder:

(i) An Event of Default under the Loan Agreement; or

(ii) If any representation or warranty made or given by any Borrower in connection with this Agreement shall prove to have been incorrect or misleading or breached in any respect as of the date when made; or

(iii) If any Borrower fails to observe or perform any of the covenants and agreements set forth in this Agreement, and such failure continues unremedied for a period of fifteen (15) days; or

(iv) If all or any part of the Collateral is subject to levy of execution or other judicial process.

(b) If any Event of Default shall have occurred and is continuing, then the Collateral/Documentation Agent shall be entitled to exercise in respect of the Collateral, in addition to other rights and remedies provided for herein, in the Loan Agreement and other Loan Documents or otherwise available to it or any Lender, all of the rights and remedies of a secured party under the Uniform Commercial Code in effect in the Commonwealth of Virginia (the "UCC"), whether or not the UCC applies to the affected Collateral, and also may (i) require any Borrower, and each Borrower hereby agrees that it will upon the request of the Collateral/Documentation Agent, forthwith, execute and deliver an assignment, substantially in the form of *Exhibit A* hereto, of all of its right, title and interest in and to the Collateral, and take such other action as the Collateral/Documentation Agent may request to effectuate the outright assignment of such Collateral or to exercise, register or further perfect and/or protect the Collateral/Documentation Agent's rights and remedies with respect to such assigned Collateral; (ii) without notice (except as specified below) sell the Intellectual Property and the goodwill of the businesses related thereto or any part thereof in one or more parcels at public or private sale, at any of the Collateral/Documentation Agent's offices or elsewhere, for cash, on credit or for future delivery, and upon such terms as the Collateral/Documentation Agent may deem commercially reasonable; (iii) require any Borrower to cease its use of any Intellectual Property for any purpose whatsoever; and/or (iv) grant such general, special or other license or licenses relating to the Collateral for such term or terms, on such conditions, and in such manner, as the Collateral/Documentation Agent shall in its sole discretion deem appropriate. The Borrowers agree that at least ten (10) days' notice to the Borrowers of the time and place of any public sale or the time after which any private sale is to be made shall constitute reasonable notification. The Collateral/Documentation Agent shall not be obligated to make any sale of the Collateral regardless of notice of sale having been given. The Collateral/Documentation Agent may adjourn any public or private sale from time to time by announcement at the time and place fixed therefor, and such sale may, without further notice, be made at the time and place to which it was so adjourned. The Collateral/Documentation Agent may purchase all or any part of the Collateral at public or private sale and, in lieu of actual payment of the purchase price, may set-off the amount of such price against the Indebtedness. Any such sale pursuant to this Section 9(b) shall be made in accordance with the applicable provisions of the laws and rules of procedure of the Commonwealth of Virginia and/or other applicable law. If and to the extent that the Collateral/Documentation Agent receives the benefit of any right or remedy afforded by the UCC, then the Collateral/Documentation Agent agrees that such right and/or remedy shall be exercised in accordance with the applicable provisions of the UCC. The proceeds realized from the sale of any Collateral shall be, applied first to the reasonable costs, expenses and attorneys and paralegal fees and expenses of collection and/or for acquisition, protection and sale of the Collateral; second to interest due upon any of the Indebtedness; and third to the



principal of the Indebtedness. If any deficiency shall remain, the Borrowers shall remain jointly and severally liable to the Lenders therefor. The commencement of any action, legal or equitable, or the rendering of any judgment or decree for deficiency shall not affect the Collateral/Documentation Agent's security interest in the Collateral until the Indebtedness is fully paid. The Borrowers agree that the Collateral/Documentation Agent has no obligation to preserve rights to Collateral against any other parties.

10. Miscellaneous Provisions.

(a) Notice. Any notice, approval, consent or other communication shall be in the form and manner, and to the addresses as set forth in the Loan Agreement.

(b) Headings. The various headings in this Agreement are inserted for convenience only and shall not affect the meaning or interpretation of this Agreement or any provision hereof.

(c) Amendments. No amendment, modification or waiver of, or consent with respect to, any provision of this Agreement shall be effective unless the same shall be in writing and signed and delivered by the Collateral/Documentation Agent and Borrowers.

(d) No Waiver. No delay in enforcing or failure to enforce any right under this Agreement by the Collateral/Documentation Agent shall constitute a waiver by the Collateral/Documentation Agent of such right. No waiver by the Collateral/Documentation Agent of any default hereunder shall be effective unless in writing, nor shall any waiver operate as a waiver of any other default or of the same default on a future occasion.

(e) Interpretation of Agreement. Time is of the essence with respect to each provision of this Agreement of which time is an element. If any provision of this Agreement should be found to be invalid or unenforceable, all of the other provisions shall nonetheless remain in full force and effect to the maximum extent permitted by law. To the extent a term or provision of this Agreement conflicts with the Loan Agreement and is not dealt with more specifically herein, the Loan Agreement shall control with respect to such term or provision.

(f) Continuing Security Interest. This Agreement shall create a continuing security interest in the Collateral and shall (i) remain in full force and effect until payment in full of the Indebtedness and termination of all commitments under the Loan Documents; (ii) be binding upon the Borrowers, the Collateral/Documentation Agent and their successors and assigns; and (iii) inure, together with the rights and

remedies of the Collateral/Documentation Agent hereunder, to the benefit of the Collateral/Documentation Agent and its respective successors, transferees and assigns.

(g) Reinstatement. This Agreement shall continue to be effective or be reinstated, as the case may be, if at any time any amount received by any Lender in respect of the Indebtedness is rescinded or must otherwise be restored or returned by such Lender upon the insolvency, bankruptcy, dissolution, liquidation or reorganization of any Borrower or upon the appointment of any intervenor or conservator of, or trustee or similar official for, any Borrower or any substantial part of its assets, or otherwise, all as though such payments had not been made.

(h) Final Expression. This Agreement, together with the Loan Agreement, the Loan Documents and any other agreement executed in connection herewith, is intended by the parties as a final expression of their agreement and is intended as a complete and exclusive statement of the terms and conditions thereof with respect to the subject matter thereof. Acceptance of or acquiescence in a course of performance rendered under this Agreement shall not be relevant to determine the meaning of this Agreement even though the accepting or acquiescing party had knowledge of the nature of the performance and opportunity for objection.

(i) Survival of Provisions. All representations, warranties and covenants of any Borrower contained herein shall survive the execution and delivery of this Agreement, and shall terminate only upon the full and final payment and performance by the Borrowers of the Indebtedness and all other obligations secured hereby.

(j) Power of Attorney. Each Borrower hereby appoints and constitutes the Collateral/Documentation Agent as such Borrower's attorney-in-fact, upon and at any time after the occurrence of and during the continuance of an Event of Default, for purposes of (i) endorsing such Borrower's name on all applications, documents, papers and instruments necessary or desirable for the Collateral/Documentation Agent in connection with the use of the Collateral, including, without limitation, if such Borrower fails to execute and deliver within three (3) Business Days of the Collateral/Documentation Agent's request therefor the assignment substantially in the form of *Exhibit A* hereto; (ii) taking any other action with respect to the Collateral as the Collateral/Documentation Agent deems in the best interest of the Lenders so long as such action shall not be inconsistent with the terms of this Agreement; (iii) granting or issuing any exclusive or non-exclusive license under the Collateral to anyone, as may be permitted pursuant to this Agreement; or (iv) assigning, pledging, conveying or otherwise transferring title in or disposing of the Collateral to anyone in accordance with the provisions of this Agreement, and to take any other actions arising from or incident to the powers granted to the Collateral/Documentation Agent in this Agreement. This power of attorney is coupled with an interest and is irrevocable.

(k) Authority of the Secured Party. The Collateral/Documentation Agent shall have and be entitled to exercise all powers hereunder which are specifically granted to the Collateral/Documentation Agent by the terms hereof, together with such powers as are reasonably incident thereto. The Collateral/Documentation Agent may perform any of its duties hereunder or in connection with the Collateral by or through agents or employees, and shall be entitled to retain counsel and to act in reliance upon the advice of counsel concerning all such matters. Neither the Collateral/Documentation Agent nor any Lender, or any director, officer, employee, attorney or agent of the Collateral/Documentation Agent or any Lender shall be liable to any Borrower for any action taken or omitted to be taken by it or them hereunder, except for its or their own gross negligence or willful misconduct, nor shall the Collateral/Documentation Agent or any Lender be responsible for the validity, effectiveness or sufficiency hereof or of any document or security furnished pursuant hereto. The Collateral/Documentation Agent and its directors, officers, employees, attorneys and agents shall be entitled to rely on any communication, instrument or document believed by it or them to be genuine and correct and to have been signed or sent by the proper person or persons.

(l) Termination of Agreement. The Collateral/Documentation Agent shall, at the request and expense of the Borrowers, following the payment in full of all of the Indebtedness and termination of all commitments under the Loan Documents, reassign and redeliver to the Borrowers all of the Collateral hereunder which has not been sold, disposed of, retained or applied by the Collateral/Documentation Agent in accordance with the terms hereof. Such reassignment and redelivery shall be without warranty by or recourse to the Collateral/Documentation Agent (other than for acts or omissions constituting gross negligence or willful misconduct of the Collateral/Documentation Agent), and shall be at the expense of the Borrowers.

(m) Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which shall together constitute one and the same agreement.

(n) Joint and Several Liability. In the event there is more than one (1) Borrower, each of the Borrowers shall be jointly and severally liable for the payment and performance of all obligations hereunder.

(o) GOVERNING LAW. THE VALIDITY, INTERPRETATION AND ENFORCEMENT OF THIS AGREEMENT AND ANY DISPUTE ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT, WHETHER SOUNDING IN CONTRACT, TORT, EQUITY OR OTHERWISE, SHALL BE GOVERNED BY THE INTERNAL LAWS (AS OPPOSED TO THE CONFLICTS OF LAWS PROVISIONS) AND DECISIONS OF THE COMMONWEALTH OF VIRGINIA.

(p) SUBMISSION TO JURISDICTION. ANY JUDICIAL PROCEEDING BROUGHT AGAINST ANY BORROWER WITH RESPECT TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT MAY BE BROUGHT IN ANY COURT OF COMPETENT JURISDICTION IN THE COMMONWEALTH OF VIRGINIA, AND BY EXECUTION AND DELIVERY OF THIS AGREEMENT, EACH BORROWER ACCEPTS FOR ITSELF AND IN CONNECTION WITH ITS PROPERTIES, GENERALLY AND UNCONDITIONALLY, THE NON-EXCLUSIVE JURISDICTION OF THE AFORESAID COURT, AND IRREVOCABLY AGREES TO BE BOUND BY ANY JUDGMENT RENDERED BY SUCH COURT IN CONNECTION WITH THIS AGREEMENT. EACH BORROWER IRREVOCABLY DESIGNATES AND APPOINTS JODEE E. BATDORF, ESQ., WHOSE ADDRESS IS 12015 LEE JACKSON HIGHWAY, EIGHTH FLOOR, FAIRFAX, VIRGINIA 22033, AS ITS AGENT TO RECEIVE ON ITS BEHALF SERVICE OF ALL PROCESS IN ANY SUCH PROCEEDING IN ANY COURT IN THE COMMONWEALTH OF VIRGINIA, SUCH SERVICE BEING HEREBY ACKNOWLEDGED BY EACH BORROWER TO BE EFFECTIVE AND BINDING ON IT IN EVERY RESPECT. A COPY OF ANY SUCH PROCESS SO SERVED SHALL BE MAILED BY REGISTERED OR CERTIFIED MAIL TO THE BORROWER AT THE ADDRESS TO WHICH NOTICES ARE TO BE ADDRESSED IN ACCORDANCE WITH THIS AGREEMENT, EXCEPT THAT ANY FAILURE TO MAIL SUCH COPY SHALL NOT AFFECT THE VALIDITY OF SERVICE OF PROCESS. EACH BORROWER SHALL AT ALL TIMES MAINTAIN AN AGENT FOR SERVICE OF PROCESS PURSUANT TO THIS PROVISION. IF ANY BORROWER FAILS TO APPOINT SUCH AN AGENT, OR IF SUCH AGENT REFUSES TO ACCEPT SERVICE, SUCH BORROWER HEREBY AGREES THAT SERVICE UPON IT BY MAIL SHALL CONSTITUTE SUFFICIENT NOTICE. NOTHING HEREIN SHALL AFFECT THE RIGHT TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY LAW OR SHALL LIMIT THE RIGHT OF THE AGENTS OR LENDERS TO BRING PROCEEDINGS AGAINST ANY BORROWER IN THE COURTS OF ANY OTHER JURISDICTION.

(q) JURY TRIAL. EACH BORROWER AND THE COLLATERAL/DOCUMENTATION AGENT HEREBY WAIVE ANY RIGHT TO A TRIAL BY JURY. INSTEAD, ANY DISPUTES WILL BE RESOLVED IN A BENCH TRIAL.

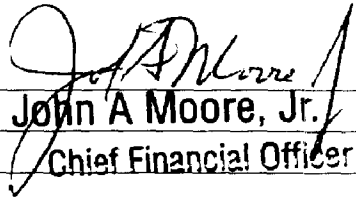
(r) WAIVER OF BOND. EACH BORROWER WAIVES THE POSTING OF ANY BOND OTHERWISE REQUIRED OF THE COLLATERAL/DOCUMENTATION AGENT IN CONNECTION WITH ANY JUDICIAL PROCESS OR PROCEEDING TO OBTAIN POSSESSION OF, REPLEVY, ATTACH OR LEVY UPON COLLATERAL OR OTHER SECURITY FOR THE INDEBTEDNESS, TO ENFORCE ANY JUDGMENT OR OTHER COURT ORDER ENTERED IN FAVOR OF THE COLLATERAL/DOCUMENTATION AGENT, OR

TO ENFORCE BY SPECIFIC PERFORMANCE, TEMPORARY RESTRAINING ORDER, PRELIMINARY OR PERMANENT INJUNCTION THIS SECURITY AGREEMENT OR ANY OTHER AGREEMENT OR DOCUMENT BETWEEN ANY BORROWER AND THE COLLATERAL/DOCUMENTATION AGENT.

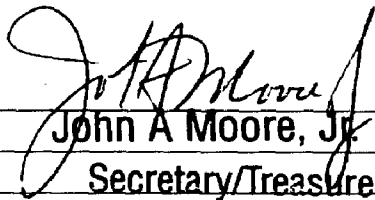
*[Remainder of page intentionally left blank – signature pages follow]*

IN WITNESS WHEREOF, the Borrowers have duly executed and delivered this Agreement as of the day and year first above written.

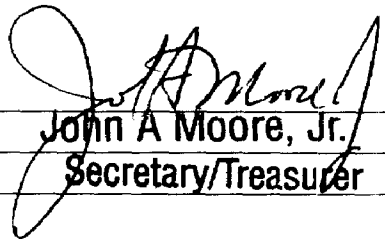
MANTECH INTERNATIONAL  
CORPORATION, a New Jersey corporation

By:   
Name: John A Moore, Jr.  
Title: Chief Financial Officer

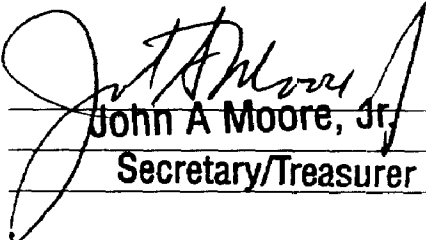
MANTECH ADVANCED SYSTEMS  
INTERNATIONAL, INC., a Virginia  
corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

MANTECH SYSTEMS ENGINEERING  
CORPORATION, a Virginia corporation

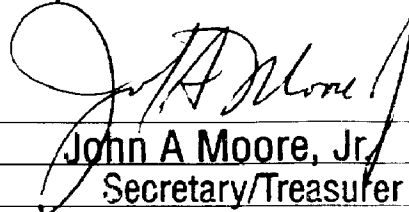
By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

NSI TECHNOLOGY SERVICES  
CORPORATION, a California corporation

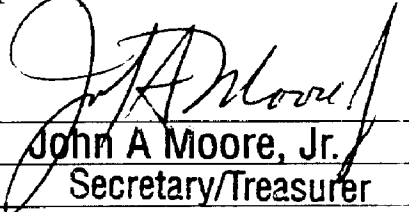
By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

*[Signatures continued on following page]*

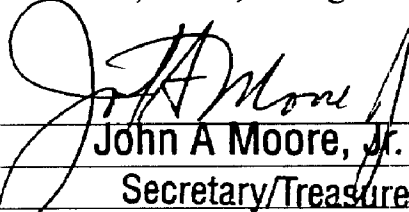
MANTECH SYSTEMS CORPORATION, a  
New Jersey Corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

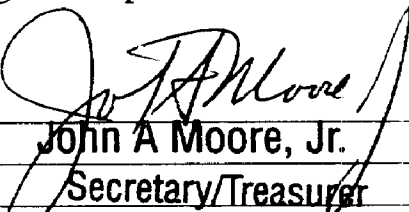
MANTECH SOLUTIONS CORPORATION, a  
Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

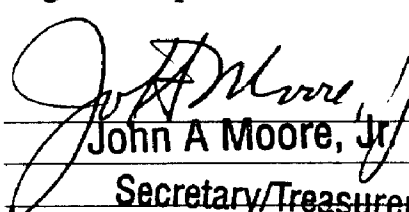
MANTECH ENVIRONMENTAL  
TECHNOLOGY, INC., a Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

MANTECH SUPPORT TECHNOLOGY,  
INC., a Virginia corporation

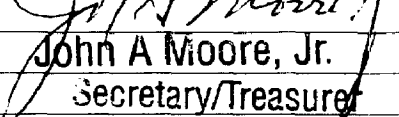
By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

MANTECH AUSTRALIA INTERNATIONAL,  
INC., a Virginia corporation

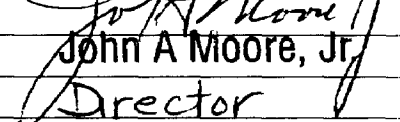
By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

*[Signatures continued on following page]*

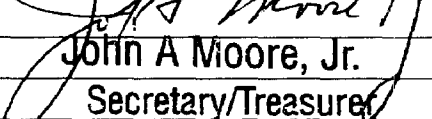
FIELD SUPPORT SERVICES  
MÜHENDISLIK LIMITED SIRKETI, a  
corporation organized and existing under the  
laws of Turkey

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

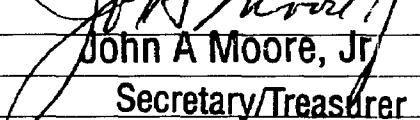
MASI U.K. LIMITED, a corporation organized  
and existing under the laws of the United  
Kingdom

By:   
Name: John A Moore, Jr.  
Title: Director

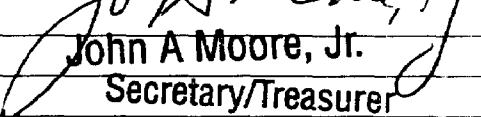
MANTECH TELECOMMUNICATIONS  
AND INFORMATION SYSTEMS  
CORPORATION, a Delaware corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

TECHNOLOGY MANAGEMENT  
CORPORATION, a Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

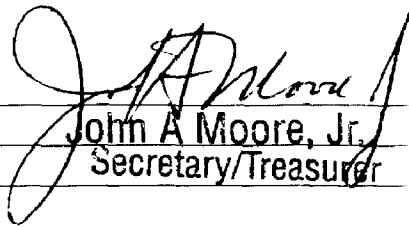
SCIENCE ENGINEERING & ANALYSIS,  
INCORPORATED, a Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

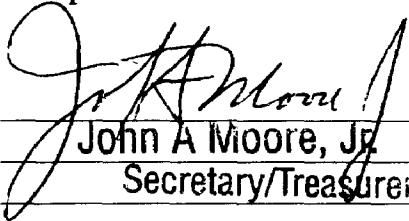
*[Signatures continued on following page]*



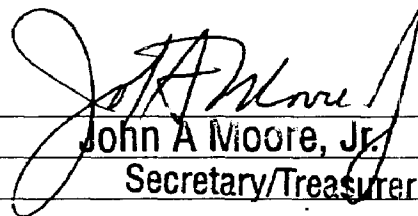
MANTECH ENVIRONMENTAL RESEARCH  
SERVICES CORP., a Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

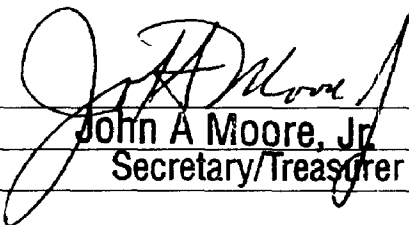
NSI ENVIRONMENTAL SOLUTIONS, INC.,  
a Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

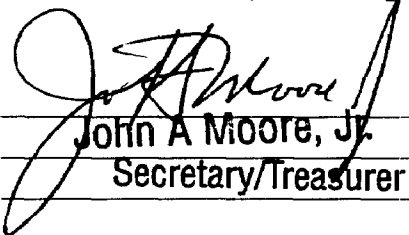
MANTECH ENVIRONMENTAL  
CORPORATION, a Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

MANTECH CHINA SYSTEMS  
CORPORATION, a Virginia corporation

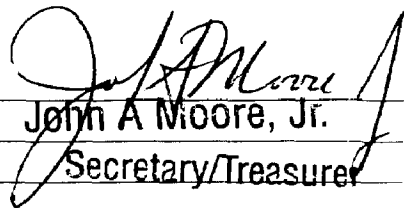
By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

MANTECH DESIGN AND DEVELOPMENT  
CORPORATION, a Maryland corporation

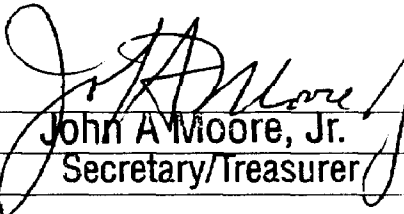
By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

*[Signatures continued on following page]*

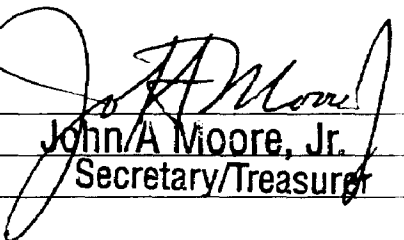
MANTECH SYSTEMS SOLUTIONS  
CORPORATION, a Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

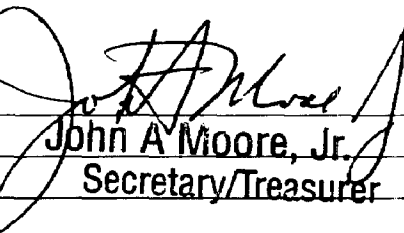
MANTECH TEST SYSTEMS, INC., a Virginia  
corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

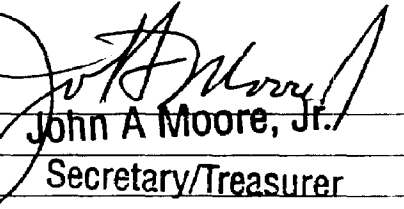
MANTECH SYSTEMS INTEGRATION  
CORPORATION, a Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

MANTECH INTERNATIONAL PANAMA,  
INC., a Republic of Panama corporation

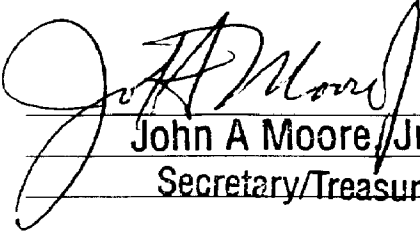
By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

MANTECH U.K. SYSTEMS CORPORATION,  
a Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

*[Signatures continued on following page]*

MANTECH GERMANY SYSTEMS  
CORPORATION, a Virginia corporation

By:   
Name: John A Moore, Jr.  
Title: Secretary/Treasurer

By acceptance hereof as of the day of \_\_\_\_\_, 1998, the  
Collateral/Documentation Agent agrees to be bound by the provisions hereof.

FIRST UNION COMMERCIAL  
CORPORATION, a North Carolina  
corporation, as Collateral/Documentation Agent

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH GERMANY SYSTEMS  
CORPORATION, a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

By acceptance hereof as of the <sup>10<sup>th</sup></sup> day of November, 1998, the  
Collateral/Documentation Agent agrees to be bound by the provisions hereof.

FIRST UNION COMMERCIAL  
CORPORATION, a North Carolina  
corporation, as Collateral/Documentation Agent

By: \_\_\_\_\_  
Name: Barbara Boehm  
Title: v.p.

## SCHEDULE 1

### Description of MANTECH COMPANIES

- (i) MANTECH INTERNATIONAL CORPORATION, a New Jersey corporation
- (ii) MANTECH ADVANCED SYSTEMS INTERNATIONAL, INC., a Virginia corporation
- (iii) MANTECH SYSTEMS ENGINEERING CORPORATION, a Virginia corporation
- (iv) NSI TECHNOLOGY SERVICES CORPORATION, a California corporation
- (v) MANTECH SYSTEMS CORPORATION, a New Jersey Corporation
- (vi) MANTECH SOLUTIONS CORPORATION, a Virginia corporation
- (vii) MANTECH ENVIRONMENTAL TECHNOLOGY, INC., a Virginia corporation
- (viii) MANTECH SUPPORT TECHNOLOGY, INC., a Virginia corporation
- (ix) MANTECH AUSTRALIA INTERNATIONAL, INC., a Virginia corporation
- (x) FIELD SUPPORT SERVICES MÜHENDISLIK LIMITED SIRKETI, a corporation organized and existing under the laws of Turkey
- (xi) MASI U.K. LIMITED, a corporation organized and existing under the laws of the United Kingdom
- (xii) MANTECH TELECOMMUNICATIONS AND INFORMATION SYSTEMS CORPORATION, a Delaware corporation

- (xiii) TECHNOLOGY MANAGEMENT CORPORATION, a Virginia corporation
- (xiv) SCIENCE ENGINEERING & ANALYSIS, INCORPORATED, a Virginia corporation
- (xv) MANTECH ENVIRONMENTAL RESEARCH SERVICES CORP., a Virginia corporation
- (xvi) NSI ENVIRONMENTAL SOLUTIONS, INC., a Virginia corporation
- (xvii) MANTECH ENVIRONMENTAL CORPORATION, a Virginia corporation
- (xviii) MANTECH CHINA SYSTEMS CORPORATION, a Virginia corporation
- (xix) MANTECH DESIGN AND DEVELOPMENT CORPORATION, a Maryland corporation
- (xx) MANTECH SYSTEMS SOLUTIONS CORPORATION, a Virginia corporation
- (xxi) MANTECH TEST SYSTEMS, INC., a Virginia corporation
- (xxii) MANTECH SYSTEMS INTEGRATION CORPORATION, a Virginia corporation
- (xxiii) MANTECH INTERNATIONAL PANAMA, INC., a Republic of Panama corporation
- (xxiv) MANTECH U.K. SYSTEMS CORPORATION, a Virginia corporation
- (xxv) MANTECH GERMANY SYSTEMS CORPORATION, a Virginia corporation

SCHEDULE 2  
TO  
INTELLECTUAL PROPERTY SECURITY AGREEMENT

Dated as of November 10, 1998

Intellectual Property Owned by any Borrower

INTELLECTUAL PROPERTY	HELD BY	REGISTRATION NUMBER OR (APPLICATION SERIAL NUMBER)	REGISTRATION OR (FILING DATE)
		U.S. Registration No.	Registered
CleanOX		1,847,876	August 2, 1994
Canada Patent Application	Ronald J. Vigneri	2,155,854	February 9, 1994
Europe Patent Application	Ronald J. Vigneri	94909576.4	February 9, 1994
Europe Patent Application	Ronald J. Vigneri	94908035.2	February 9, 1994
World Patent Application	Ronald J. Vigneri	US94/01440	February 9, 1994
Canada Patent Application	Ronald J. Vigneri	2,155,855	February 10, 1994
World Patent Application	Ronald J. Vigneri	US94/01533	February 10, 1994
United States Patent		5,286,141	February 15, 1994
United States Patent		5,520,483	May 28, 1996
KnowHow related to U.S. patents		5,286,141 and 5,520,483	
International Application	Ronald J. Vigneri	PCT/US94/01533	February 10, 1994
GeoEnvironmental software known as GEMS, a recipe generator program, and source code, including copyright thereto			

**SCHEDULE 3  
TO  
INTELLECTUAL PROPERTY SECURITY AGREEMENT**

As part of the CleanOx acquisition of assets by ManTech Environmental Corporation, ManTech assumed two patent enforcement suits. The defense is based on the claim that the patents are invalid. Both suits are currently pending.



EXHIBIT A  
FORM OF ASSIGNMENT

ASSIGNMENT OF INTELLECTUAL PROPERTY

THIS ASSIGNMENT OF INTELLECTUAL PROPERTY ("Assignment") is made as of \_\_\_\_\_, \_\_\_\_ by the MANTECH COMPANIES (as defined on Schedule 1 hereto) (individually an "Assignor" and collectively, the "Assignors") in favor of FIRST UNION COMMERCIAL CORPORATION, a North Carolina corporation, as Collateral/Documentation Agent (collectively, the "Assignee").

Recitals

WHEREAS, Assignors and Assignee are parties to that certain Intellectual Property Security Agreement dated as of November 10, 1998 from Assignors to Assignee (the "Agreement"), providing that under certain conditions specified therein Assignor shall execute this Agreement; and

WHEREAS, the aforementioned conditions have been fulfilled;

NOW THEREFORE, each Assignor hereby agrees as follows:

1. Assignment of Intellectual Property. Each Assignor hereby grants, assigns and conveys to Assignee its entire right, title and interest in and to (a) the patents, trademarks, service marks, mask works, copyrights, licenses, patent applications, service mark applications, mask work applications, tradenames, trademark registrations and other intellectual property listed on Schedule 2 hereto and made a part hereof, and all renewals thereof, all income, royalties, damages, payments and other proceeds now and hereafter due or payable with respect thereto, including without limitation, payments under all licenses entered into in connection therewith and damages and payments for past or future infringements thereof, the right to sue for past, present and future infringements thereof, and all rights corresponding thereto throughout the world (all of the foregoing are sometimes hereinafter referred to, either individually or collectively, as the "Intellectual Property"), and (b) the goodwill of Assignor's business connected with and symbolized by the Intellectual Property. The Intellectual Property and such goodwill are collectively referred to herein as the "Collateral".

2. Representations and Warranties. Each Assignor represents and warrants that it has the full right and power to make the assignment of the Collateral made hereby and that it has made no previous assignment, transfer, agreement in conflict herewith or

constituting a present or future assignment or encumbrance of any or all of the Collateral, except as set forth in the Agreement.

3. Modification. This Assignment cannot be altered, amended or modified in any way, except by a writing signed by the parties hereto.

4. Binding Effect; Governing Law. This Assignment shall be binding upon each Assignor and its successors and shall inure to the benefit of Assignee and its successors and assigns. This Assignment shall, except to the extent that federal law or laws of another state apply to the Collateral or any part thereof, be governed by and construed in accordance with the internal (as opposed to the conflict of laws provisions) and decisions laws of the Commonwealth of Virginia.

*[Remainder of page intentionally left blank – signature pages follows]*

IN WITNESS WHEREOF, each Assignor has caused this Assignment to be executed and delivered as of the date first above written.

**Assignors:**

MANTECH INTERNATIONAL  
CORPORATION, a New Jersey corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH ADVANCED SYSTEMS  
INTERNATIONAL, INC., a Virginia  
corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH SYSTEMS ENGINEERING  
CORPORATION, a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

NSI TECHNOLOGY SERVICES  
CORPORATION, a California corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

*[Signatures continued on following page]*

MANTECH SYSTEMS CORPORATION, a  
New Jersey Corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH SOLUTIONS CORPORATION, a  
Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH ENVIRONMENTAL  
TECHNOLOGY, INC., a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH SUPPORT TECHNOLOGY,  
INC., a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH AUSTRALIA INTERNATIONAL,  
INC., a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

*[Signatures continued on following page]*

FIELD SUPPORT SERVICES  
MÜHENDISLIK LIMITED SİRKETİ, a  
corporation organized and existing under the  
laws of Turkey

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MASI U.K. LIMITED, a corporation organized  
and existing under the laws of the United  
Kingdom

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH TELECOMMUNICATIONS  
AND INFORMATION SYSTEMS  
CORPORATION, a Delaware corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

TECHNOLOGY MANAGEMENT  
CORPORATION, a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

SCIENCE ENGINEERING & ANALYSIS,  
INCORPORATED, a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

*[Signatures continued on following page]*

MANTECH ENVIRONMENTAL RESEARCH  
SERVICES CORP., a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

NSI ENVIRONMENTAL SOLUTIONS, INC.,  
a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH ENVIRONMENTAL  
CORPORATION, a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH CHINA SYSTEMS  
CORPORATION, a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH DESIGN AND DEVELOPMENT  
CORPORATION, a Maryland corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

*[Signatures continued on following page]*

MANTECH SYSTEMS SOLUTIONS  
CORPORATION, a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH TEST SYSTEMS, INC., a Virginia  
corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH SYSTEMS INTEGRATION  
CORPORATION, a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH INTERNATIONAL PANAMA,  
INC., a Republic of Panama corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH U.K. SYSTEMS CORPORATION,  
a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MANTECH GERMANY SYSTEMS  
CORPORATION, a Virginia corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_



# SCHEDULE 1

## Description of MANTECH COMPANIES

- (i) MANTECH INTERNATIONAL CORPORATION, a New Jersey corporation
- (ii) MANTECH ADVANCED SYSTEMS INTERNATIONAL, INC., a Virginia corporation
- (iii) MANTECH SYSTEMS ENGINEERING CORPORATION, a Virginia corporation
- (iv) NSI TECHNOLOGY SERVICES CORPORATION, a California corporation
- (v) MANTECH SYSTEMS CORPORATION, a New Jersey Corporation
- (vi) MANTECH SOLUTIONS CORPORATION, a Virginia corporation
- (vii) MANTECH ENVIRONMENTAL TECHNOLOGY, INC., a Virginia corporation
- (viii) MANTECH SUPPORT TECHNOLOGY, INC., a Virginia corporation
- (ix) MANTECH AUSTRALIA INTERNATIONAL, INC., a Virginia corporation
- (x) FIELD SUPPORT SERVICES MÜHENDISLIK LIMITED SIRKETI, a corporation organized and existing under the laws of Turkey
- (xi) MASI U.K. LIMITED, a corporation organized and existing under the laws of the United Kingdom
- (xii) MANTECH TELECOMMUNICATIONS AND INFORMATION SYSTEMS CORPORATION, a Delaware corporation

- (xiii) TECHNOLOGY MANAGEMENT CORPORATION, a Virginia corporation
- (xiv) SCIENCE ENGINEERING & ANALYSIS, INCORPORATED, a Virginia corporation
- (xv) MANTECH ENVIRONMENTAL RESEARCH SERVICES CORP., a Virginia corporation
- (xvi) NSI ENVIRONMENTAL SOLUTIONS, INC., a Virginia corporation
- (xvii) MANTECH ENVIRONMENTAL CORPORATION, a Virginia corporation
- (xviii) MANTECH CHINA SYSTEMS CORPORATION, a Virginia corporation
- (xix) MANTECH DESIGN AND DEVELOPMENT CORPORATION, a Maryland corporation
- (xx) MANTECH SYSTEMS SOLUTIONS CORPORATION, a Virginia corporation
- (xxi) MANTECH TEST SYSTEMS, INC., a Virginia corporation
- (xxii) MANTECH SYSTEMS INTEGRATION CORPORATION, a Virginia corporation
- (xxiii) MANTECH INTERNATIONAL PANAMA, INC., a Republic of Panama corporation
- (xxiv) MANTECH U.K. SYSTEMS CORPORATION, a Virginia corporation
- (xxv) MANTECH GERMANY SYSTEMS CORPORATION, a Virginia corporation