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102869266

U.S. DEPARTMENT OF COMMERCE  
U.S. Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

UCAR CARBON COMPANY INC.

2. Name and address of receiving party(ies)

Name: JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT

Internal Address: \_\_\_\_\_

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☐ Assignment

☐ Merger

☒ Security Agreement

☐ Change of Name

☐ Other \_\_\_\_\_

Street Address: P.O. BOX 2558

City: HOUSTON State: TX Zip: 77252

Execution Date: 02/08/2005

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s) See Attached

B. Patent No.(s) See Attached

Additional numbers attached? ☒ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Penelope Agodoa

Internal Address: Federal Research Corporation

Street Address: 1030 15th Street, NW

Suite 920

City: Washington State: DC Zip: 20005

6. Total number of applications and patents involved: 74

7. Total fee (37 CFR 3.41).....\$ 2960

☐ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number:

DO NOT USE THIS SPACE

9. Signature.

BRADLEY PETERSEN

Name of Person Signing

Signature

3/25/2005

Date

04/05/2005 DBY:NE

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Total number of pages including cover sheet, attachments, and documents: 148

01 FC:8021  
02 FC:8023

2960.00 UP  
120.00 DP

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

PATENT  
REEL: 015878 FRAME: 0445

UCAR CARBON COMPANY INC.  
U.S. Granted Patent List

SCHEDULE 1  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT

Country	Patent Number	Grant Date	Filing Date	Status
US	5167796	01-Dec-1992	22-May-1989	GRANTED
Title: METHOD FOR PRODUCING LOW SULFUR PREMIUM COKE FROM HIGH SULFUR DECANT OILS				

US	4729689	08-Mar-1988	13-Dec-1984	GRANTED
Title: ELECTRODE MEMBER AND PROCESS FOR THE PRODUCTION THEREOF				

US	4726995	23-Feb-1988	13-Nov-1985	GRANTED
Title: OXIDATION RETARDED GRAPHITE OR CARBON ELECTRODE AND METHOD FOR PRODUCING THE ELECTRODE				

US	5413738	09-May-1995	22-Oct-1985	GRANTED
Title: CARBON-CARBON COMPOSITES CONTAINING POORLY GRAPHITIZING PITCH AS A BINDER AND/OR IMPREGNANT HAVING A REDUCED COEFFICIENT OF THERMAL EXPANSION AND IMPROVED FLEXURAL STRENGTH				

US	5688155	18-Nov-1997	24-Jan-1995	GRANTED
Title: CARBON-CARBON COMPOSITES CONTAINING POORLY GRAPHITIZING PITCH AS A BINDER AND/OR IMPREGNANT HAVING A REDUCED COEFFICIENT OF THERMAL EXPANSION AND IMPROVED FLEXURAL STRENGTH				

**UCAR CARBON COMPANY INC.  
U.S. Granted Patent List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Patent Number	Grant Date	Filing Date	Status
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US	4875979	24-Oct-1989	07-Mar-1988	GRANTED
<b>Title:</b> TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING				

US	5607770	04-Mar-1997	26-May-1995	GRANTED
<b>Title:</b> CARBON-CARBON COMPOSITES CONTAINING POORLY GRAPHITIZING PITCH AS A BINDER AND/OR IMPREGNANT HAVING A REDUCED COEFFICIENT OF THERMAL EXPANSION AND IMPROVED FLEXURAL STRENGTH				

US	4847021	11-Jul-1989	03-May-1988	GRANTED
<b>Title:</b> PROCESS FOR PRODUCING HIGH DENSITY CARBON AND GRAPHITE ARTICLES				

US	4725161	16-Feb-1988	05-Sep-1986	GRANTED
<b>Title:</b> ELECTRODE JOINT				

US	4844740	04-Jul-1989	14-Apr-1987	GRANTED
<b>Title:</b> HIGH COKING VALUE BINDER SYSTEM				

US	4895713	23-Jan-1990	16-Mar-1989	GRANTED
<b>Title:</b> INTERCALATION OF GRAPHITE				

US	GRER 4813805	21-Mar-1989	05-May-1988	GRANTED
<b>Title:</b> JOINT FOR CARBON ELECTRODES				

**UCAR CARBON COMPANY INC.  
U.S. Granted Patent List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

<b>Country</b>	<b>Patent Number</b>	<b>Grant</b>	<b>Filing</b>	<b>Status</b>
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US	5019426	28-May-1991	23-Nov-1988	GRANTED
<b>Title:</b>	TOPICAL TREATMENT FOR SEALING CARBON AND GRAPHITE SURFACES			

US	5110359	05-May-1992	10-Dec-1990	GRANTED
<b>Title:</b>	TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING			

US	-3	5118287	02-Jun-1992	05-Sep-1991	GRANTED
<b>Title:</b>	TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING				

US	-1	5143749	01-Sep-1992	01-Jul-1991	GRANTED
<b>Title:</b>	METHOD FOR TREATING A GRAPHITE OR CARBON BODY TO FORM A PROTECTIVE COATING				

US		5002981	26-Mar-1991	07-Dec-1988	GRANTED
<b>Title:</b>	HIGH STRENGTH CARBONACEOUS CEMENT				

US		5099438	24-Mar-1992	28-Aug-1989	GRANTED
<b>Title:</b>	METHOD OF ON-LINE MONITORING OF AN ELECTRIC ARC FURNACE AND METHOD OF CONTROL				

**UCAR CARBON COMPANY INC.  
U.S. Granted Patent List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Client	Patent Number	Grant Date	Filing Date	Status
US		5478442	26-Dec-1995	15-Feb-1995	GRANTED
Title: APPARATUS FOR TREATMENT OF PETROLEUM COKES WITH A PUFFING INHIBITOR IN A ROTARY CALCINER					

US		5167868	01-Dec-1992	21-Feb-1991	GRANTED
Title: CONDUCTIVE EXPANDABLE CARBONACEOUS PASTE MATERIAL					

US		5115447	19-May-1992	10-Jan-1991	GRANTED
Title: IMPROVEMENT IN ARC FURNACE REGULATOR PERFORMANCE					

US		5476679	19-Dec-1995	04-May-1995	GRANTED
Title: A GLASSY CARBON COATED GRAPHITE COMPONENT FOR USE IN THE PRODUCTION OF SILICON CRYSTAL GROWTH					

US		5280063	18-Jan-1994	17-Apr-1992	GRANTED
Title: ROOM TEMPERATURE SETTING CARBONACEOUS CEMENT WITH INCREASED ELECTRICAL CONDUCTIVITY AND FLEXURAL STRENGTH					

US		5373051	13-Dec-1994	12-Oct-1993	GRANTED
Title: ROOM TEMPERATURE SETTING CARBONACEOUS CEMENT WITH INCREASED ELECTRICAL CONDUCTIVITY AND FLEXURAL STRENGTH					

**UCAR CARBON COMPANY INC.  
U.S. Granted Patent List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Client	Patent Number	Grant Date	Filing Date	Status
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US	-3	5550176	27-Aug-1996	23-Mar-1995	GRANTED
<b>Title:</b> ROOM TEMPERATURE SETTING CARBONACEOUS CEMENT WITH INCREASED ELECTRICAL CONDUCTIVITY AND FLEXURAL STRENGTH					

US		5336015	09-Aug-1994	25-Nov-1992	GRANTED
<b>Title:</b> SELF CENTERING ELECTRODE JOINT					

US		5415755	16-May-1995	17-Nov-1993	GRANTED
<b>Title:</b> FASTENING ELEMENT FOR SECURING ELECTRODE JOINTS					

US		5534133	09-Jul-1996	17-Nov-1994	Granted
<b>Title:</b> CONTINUOUS METHOD FOR INCREASING THE Q.I. CONCENTRATION OF LIQUID TAR WHILE CONCURRENTLY PRODUCING A Q.I. FREE TAR					

US		5751759	12-May-1998	31-May-1995	Granted
<b>Title:</b> PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES					

US		5631919	20-May-1997	21-Nov-1995	Granted
<b>Title:</b> APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES					

**UCAR CARBON COMPANY INC.  
U.S. Granted Patent List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Client	Patent Number	Grant Date	Filing Date	Status
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US		5843298	01-Dec-1998	27-Sep-1996	Granted
Title: PRODUCTION OF SOLIDS-FREE COAL TAR PITCH					

US		6395220	28-May-2002	02-Nov-1999	Granted
Title: CARBON FIBER BINDER PITCH					

US		6803108 B2	12-Oct-2004	11-Feb-2002	Granted
Title: CARBON FIBER BINDER PITCH					

US		6214158	10-Apr-2001	26-Feb-1999	Granted
Title: HIGH TEMPERATURE CARBONACEOUS CEMENT					

US		6378836	30-Apr-2002	12-Oct-1999	Granted
Title: LAY-UP MOLD					

US	-1	6808155	26-Oct-2004	22-Mar-2002	Granted
Title: LAY-UP MOLD					

US		6,627,062	30-Sep-2003	05-Oct-2001	Granted
Title: Graphite Cathode for the Electrolysis of Aluminium					

UCAR CARBON COMPANY INC.  
U.S. Granted Patent List

SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT

Country	Client	Patent Number	Grant Date	Filing Date	Status
US		4773980	27-Sep-1988	22-Oct-1987	GRANTED
Title: PROCESS AND APPARATUS FOR SEALING CATHODIC BARS IN A PRESTRESSED CONDITION (US)					
US		4787965	29-Nov-1988	06-Nov-1987	GRANTED
Title: PROTECTIVE COATING FOR THE CARRIER BARS OF PREBAKED ANODES AND THE EMERGING PART OF SAID ANODES (US)					
US	-1 CSV	4946502	07-Aug-1990	25-Oct-1989	GRANTED
Title: PROTECTIVE COATINGS FOR THE CARRIER BARS OF PRE-BAKED ANODES AND THE EMERGING PART OF THE ANODES (US)					
US		6280663	28-Aug-2001	25-Feb-2000	Granted
Title: A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR					
US	-1 GRER	6440563	27-Aug-2002	18-Apr-2001	Granted
Title: A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR					
US	GRER	6500022	31-Dec-2002	30-Mar-2001	Granted
Title: THREADED PIN FOR CARBON ELECTRODES					
US	GRER	6804582	12-Oct-2004	25-Sep-2000	Granted
Title: DIGITAL ELECTRODE OBSERVATION					



UCAR CARBON COMPANY INC.  
U.S. Granted Patent List

SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT

Patent Country	Grant Client	Filing Number	Date	Date	Status
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US		6549557	15-Apr-2003	18-May-2001	Granted
Title: AC ARC FURNACE WITH AUXILIARY ELECTROMAGNETIC COIL SYSTEM FOR CONTROL OF ARC DEFLECTION					

US		6724803	20-Apr-2004	04-Apr-2002	Granted
Title: Improved Induction Furnace for High Temperature Operation					

US		6,699,427	02-Mar-2004	26-Jul-2002	Granted
Title: MANUFACTURE OF CARBON/CARBON COMPOSITES BY HOT PRESSING					

US		6800364	05-Oct-2004	28-Jun-2002	Granted
Title: ISOTROPIC PITCH-BASED MATERIALS FOR THERMAL INSULATION					

TOTAL GRANTED = 48

**UCAR CARBON COMPANY INC.  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Application Number	Filing	Status
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US	10/832098	26-Apr-2004	Pending
<b>Title: CARBON FIBER BINDER PITCH</b>			

US	10/914726	09-Aug-2004	Pending
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**Title: DIGITAL ELECTRODE OBSERVATION**

US	10/076946	14-Feb-2002	Pending
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**Title: ELECTRODE INSPECTION SYSTEM**

US	09/821990	30-Mar-2001	Pending
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**Title: PITCH PLUG FOR CARBON ELECTRODE JOINT ASSEMBLY**

US	09/967734	28-Sep-2001	Published
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**Title: SUGAR ADDITIVE BLEND USEFUL AS A BINDER OR IMPREGNANT FOR CARBON PRODUCTS**

US	10/185058	28-Jun-2002	Published
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**Title: SUGAR ADDITIVE BLEND USEFUL AS A BINDER OR IMPREGNANT FOR CARBON PRODUCTS**

US	10/013072	10-Dec-2001	Pending
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**Title: BATCH PROCESS FOR MAKING HIGH FLASH POINT PITCH**

**UCAR CARBON COMPANY INC.  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**PATENT  
REEL: 015878 FRAME: 0455**

<b>Country</b>	<b>Application Number</b>	<b>Filing Date</b>	<b>Status</b>
US	10/792097	03-Mar-2004	Pending
<b>Title:</b> Improved Induction Furnace for High Temperature Operation			
US	10/272817	17-Oct-2002	Published
<b>Title:</b> Improved High Temperature Insulator			
US	10/760,946	20-Jan-2004	Pending
<b>Title:</b> MANUFACTURE OF CARBON/CARBON COMPOSITES BY HOT PRESSING			
US	10/865,294	10-Jun-2004	Pending
<b>Title:</b> ISOTROPIC PITCH-BASED MATERIALS FOR THERMAL INSULATION			
US	10/379077	04-Mar-2003	Published
<b>Title:</b> Process of Making Carbon Electrodes			
US	10/649359	27-Aug-2003	Published
<b>Title:</b> Process of Making Carbon Electrodes			

**UCAR CARBON COMPANY INC.  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Client	Application Number	Filing Date	Status
US		10/720841	24-Nov-2003	Published
Title: Manufacture of Carbon/Carbon Composites by Hot Pressing				

US		10/372349	24-Feb-2003	Published
Title: Manufacture of Carbon Composites by Hot Pressing				

US		10/720833	24-Nov-2003	Pending
Title: Manufacture of Carbon Composites by Hot Pressing				

US		10/999192	29-Nov-2004	Pending
Title: Manufacture of Carbon Composites by Hot Pressing				

US		10/760947	20-Jan-2004	Pending
Title: End Face Seal for Graphite Electrodes				

US		10/802,621	17-Mar-2004	Pending
Title: Graphite Threads Resistant to Disassembly and Method of Making the Same				

US		10/830618	23-Apr-2004	Pending
Title: Male-Female Electrode Joint				

US		10/975607	28-Oct-2004	Pending
Title: Male-Female Electrode Joint				

**UCAR CARBON COMPANY INC.  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Client	Application Number	Filing Date	Status
US		10/860,378	03-Jun-2004	Pending
<b>Title:</b> Electrode Joint Locking System				

US		10/860,382	03-Jun-2004	Pending
<b>Title:</b> Locking Ring for Graphite Electrodes				

US			29-Dec-2004	Pending
<b>Title:</b> Extended Length Graphite Electrode				

US		10/970352	21-Oct-2004	Pending
<b>Title:</b> High Strength Monolithic Carbon Foam				

US	GRER	10/999,374	30-Nov-2004	Pending
<b>Title:</b> Electric Arc Furnace Monitoring System and Method				

**TOTAL PENDING = 26**

AMENDED AND RESTATED INTELLECTUAL PROPERTY SECURITY AGREEMENT dated as of February 8, 2005, made by GRAFTECH INTERNATIONAL LTD., a Delaware corporation ("GrafTech"), GRAFTECH GLOBAL ENTERPRISES INC., a Delaware corporation ("Global"), GRAFTECH FINANCE INC., a Delaware corporation (the "Borrower"), and the subsidiaries of GrafTech from time to time party hereto (the "Subsidiary Grantors", and together with GrafTech, Global and the Borrower, the "Grantors") in favor of JPMORGAN CHASE BANK, N.A. as collateral agent for the Secured Parties (such term and each other capitalized term used but not defined herein having the meaning given it in the Credit Agreement).

Reference is made to the Amended and Restated Credit Agreement dated as of February 8, 2005 (as the same may be amended, supplemented or otherwise modified from time to time, the "Credit Agreement") among GrafTech, Global, the Borrower, the LC Subsidiaries from time to time party thereto, the Lenders from time to time party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent, Collateral Agent and Issuing Bank.

The Lenders and the Issuing Banks, respectively, have agreed to make Loans and to issue Letters of Credit pursuant to, and upon the terms and subject to the conditions specified in, the Credit Agreement.

Each Grantor that is a party to the existing Intellectual Property Security Agreement dated as of February 22, 2000, among GrafTech, Global, the Borrower, the grantors party thereto and JPMorgan Chase Bank, N.A. (as successor to Morgan Guaranty Trust Company of New York), as collateral agent for the lenders, has agreed to reaffirm and confirm the security interests granted by it and its obligations thereunder and to amend and restate such existing Intellectual Property Security Agreement in the form hereof.

The obligations of the Lenders to make Loans and of the Issuing Banks to issue Letters of Credit under the Credit Agreement are conditioned upon, among other things, the execution and delivery by the Grantors of an intellectual property security agreement in the form hereof to secure the due and punctual payment of, with respect to each Grantor, its obligations as obligor or guarantor in respect of the Obligations (as defined below).

Accordingly, the Grantors and the Collateral Agent, on behalf of itself and each other Secured Party (and each of their successors and assigns), hereby agree as follows:

## ARTICLE I

### Definitions

**SECTION 1.01. Definition of Terms Used Herein.** All capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Credit Agreement.

**SECTION 1.02. Definition of Certain Terms Used Herein.** As used herein, the following terms shall have the following meanings:

**"Agreement"** shall mean this Intellectual Property Security Agreement.

**"Collateral"** shall mean, with respect to each Grantor, all of the following, whether now owned or hereafter acquired by such Grantor: (a) Patents, including all granted Patents, recordings and pending applications, including those listed on Schedule I attached hereto, (b) Trademarks, including all registered Trademarks, registrations, recordings, and pending applications, including those listed on Schedule II attached hereto, (c) Copyrights, including all registered Copyrights, registrations, recordings, supplemental registrations and pending applications, including those listed on Schedule III attached hereto, (d) Licenses, including those listed on Schedule IV attached hereto, (e) General Intangibles, and (f) all products and Proceeds (including insurance proceeds) of, and additions, improvements and accessions to, and books and records describing or used in connection with, any and all of the property described above.

**"Copyrights"** shall mean, with respect to each Grantor, all of the following now or hereafter owned by such Grantor: (i) all copyright rights in any work subject to the copyright laws of the United States or any other country, whether as author, assignee, transferee or otherwise, and (ii) all registrations and applications for registration of any such copyright in the United States or any other country, including registrations, recordings, supplemental registrations and pending applications for registration in the United States Copyright Office.

**"Copyright License"** shall mean, with respect to each Grantor, any written agreement, now or hereafter in effect, granting any right to any third party under any Copyright now or hereafter owned by such Grantor or which such Grantor otherwise has the right to license, or granting any right to such Grantor under any Copyright now or hereafter owned by any third party, and all rights of such Grantor under any such agreement.

**"General Intangibles"** shall mean, with respect to each Grantor, all intangible, intellectual or other similar property of such Grantor of any kind or nature now owned or hereafter acquired by such Grantor, including inventions, designs, Patents, Copyrights, Licenses, Trademarks, trade secrets, confidential or proprietary technical and business information, know-how, show-how or other data or information, software and

databases, and all embodiments or fixations thereof and related documentation, registrations, franchises, and all other intellectual or other similar property rights not otherwise described above.

**"Indemnitees"** shall mean the Collateral Agent, the Secured Parties and their respective officers, directors, trustees, affiliates and controlling persons.

**"License"** shall mean, with respect to each Grantor, any Patent License, Trademark License, Copyright License or other license or sublicense as to which such Grantor is a party (other than those license agreements which by their terms prohibit assignment or a grant of a security interest by such Grantor as licensee thereunder).

**"Obligations"** shall mean (a) the due and punctual payment of (i) the principal of and premium, if any, and interest (including interest accruing during the pendency of any bankruptcy, insolvency, receivership or other similar proceeding, regardless of whether allowed or allowable in such proceeding) on the Loans, when and as due, whether at maturity, by acceleration, upon one or more dates set for prepayment or otherwise, (ii) each payment required to be made by the Borrower or any Subsidiary under the Credit Agreement in respect of any Letter of Credit, when and as due, including payments in respect of reimbursement of disbursements, interest thereon and obligations to provide cash collateral and (iii) all other monetary obligations, including fees, costs, expenses and indemnities, whether primary, secondary, direct, contingent, fixed or otherwise (including monetary obligations incurred during the pendency of any bankruptcy, insolvency, receivership or other similar proceeding, regardless of whether allowed or allowable in such proceeding), of GrafTech, Global, the Borrower and the Subsidiaries under the Credit Agreement and the other Loan Documents (including, without limitation, all monetary obligations of the Intercompany Borrowers under the Intercompany Notes and Intercompany Borrower Agreements and of the Intercompany Foreign Borrowers under the Intercompany Foreign Borrower Notes and Intercompany Foreign Borrower Agreements, but in each case only for as long as (A) such Intercompany Note and the rights of the Borrower under the Intercompany Borrower Agreement relating thereto are pledged to the Collateral Agent under one or more Security Documents as security for the Obligations and (B) such Intercompany Foreign Borrower Note and the rights of Swissco under the Intercompany Foreign Borrower Agreement relating thereto are pledged to (1) the Borrower under one or more Security Documents as security for the obligations of Swissco under the Swissco Note and the Intercompany Borrower Agreement of Swissco and (2) the Collateral Agent under one or more Security Documents as security for the Obligations Guaranteed under the Swissco Guarantee), (b) the due and punctual performance of all covenants, agreements, obligations and liabilities of GrafTech, Global, the Borrower and the Subsidiaries under or pursuant to the Credit Agreement and the other Loan Documents, (c) unless otherwise agreed upon in writing by the applicable Lender party thereto, the due and punctual payment and performance of all obligations of GrafTech, Global, the Borrower and the Subsidiaries, monetary or otherwise, under each Interest/Exchange Rate Protection Agreement and each Commodity Protection Rate Agreement entered into with any counterparty that (i) is or was a Lender (or an Affiliate thereof) at the time such Interest/Exchange Rate Protection Agreement or Commodity Protection Rate Agreement



was entered into or (ii)(A) was a "Lender" as defined in the Existing Credit Agreement (or an Affiliate thereof) at the time such Interest/Exchange Rate Protection Agreement was entered into and (B) was one of the initial Lenders under the Credit Agreement (or an Affiliate thereof), (d) all obligations of GrafTech, Global, the Borrower and the Subsidiaries under the Guarantee Agreements and (e) unless otherwise agreed upon in writing by the applicable Lender party thereto, the due and punctual payment and performance of the obligations of GrafTech, Global, the Borrower and the Subsidiaries, monetary or otherwise, under each Cash Management Arrangement entered into with (i) any person that is or was a Lender (or an Affiliate thereof) at the time such Cash Management Arrangement was entered into or (ii) in the case of any Cash Management Arrangement in effect on the Effective Date, any person that was a Lender under the Credit Agreement on the Effective Date (or an Affiliate thereof).

**"Patent License"** shall mean, with respect to each Grantor, any written agreement, now or hereafter in effect, granting to any third party any right to make, use or sell any invention on which a Patent, now or hereafter owned by such Grantor or which such Grantor otherwise has the right to license, is in existence, or granting to such Grantor any right to make, use or sell any invention on which a Patent, now or hereafter owned by any third party, is in existence, and all rights of such Grantor under any such agreement.

**"Patents"** shall mean, with respect to each Grantor, all the following now or hereafter owned by such Grantor: (a) all letters patent of the United States or any other country, including patents, design patents or utility models, all registrations and recordings thereof, and all applications for letters patent of the United States or any other country, including registrations, recordings and pending applications in the United States Patent and Trademark Office or any similar offices in any other country, and (b) all reissues, continuations, divisions, continuations-in-part, renewals or extensions thereof, and the inventions disclosed or claimed therein.

**"Proceeds"** shall mean, with respect to each Grantor, any consideration received from the sale, exchange, license, lease or other disposition of any asset or property that constitutes Collateral owned by such Grantor, any value received as a consequence of the possession of any such Collateral and any payment received from any insurer or other person or entity as a result of the destruction, loss, theft or other involuntary conversion of whatever nature of any asset or property that constitutes such Collateral, any claim of such Grantor against third parties for (and the right to sue and recover for and the rights to damages or profits due or accrued arising out of or in connection with) (a) past, present or future infringement of any Patent now or hereafter owned by such Grantor or licensed to such Grantor under a Patent License, (b) past, present or future infringement or dilution of any Trademark now or hereafter owned by such Grantor or licensed to such Grantor under a Trademark License or injury to the goodwill associated with or symbolized by any Trademark now or hereafter owned by such Grantor, (c) past, present or future breach of any License, (d) past, present or future infringement of any Copyright now or hereafter owned by such Grantor or licensed to such Grantor under a Copyright License, and (e) any and all other amounts from time to time paid or payable under or in connection with any of such Collateral.

**"Trademark License"** shall mean, with respect to each Grantor, any written agreement, now or hereafter in effect, granting to any third party any right to use any Trademark now or hereafter owned by such Grantor or that such Grantor otherwise has the right to license, or granting to such Grantor any right to use any Trademark now or hereafter owned by any third party, and all rights of such Grantor under any such agreement.

**"Trademarks"** shall mean, with respect to each Grantor, all of the following now or hereafter owned by such Grantor: (a) all trademarks, service marks, trade names, corporate names, company names, business names, fictitious business names, trade styles, trade dress, logos, other source or business identifiers, prints and labels on which any of the foregoing have appeared or appear, and all designs and general intangibles of like nature, now existing or hereafter adopted or acquired, all registrations and recordings thereof, and all registration and recording applications filed in connection therewith, including registrations, recordings and applications in the United States Patent and Trademark Office, any State of the United States or any similar offices in any other country or any political subdivision thereof, and all extensions or renewals thereof, and (b) all goodwill associated therewith or symbolized thereby, and (c) all other assets, rights and interests that uniquely reflect or embody such goodwill.

**SECTION 1.03. Rules of Interpretation.** The rules of interpretation specified in Section 1.03 of the Credit Agreement shall be applicable to this Agreement.

## ARTICLE II

### Security Interest

**SECTION 2.01. Security Interest.** As security for the payment or performance, as the case may be, of the Obligations, each Grantor hereby creates, mortgages, pledges, hypothecates and transfers to the Collateral Agent, its successors and assigns, for the ratable benefit of the Secured Parties, and hereby grants to the Collateral Agent, its successors and assigns, for the ratable benefit of the Secured Parties, a continuing first priority security interest in all such Grantors' right, title and interest in, to and under the Collateral (except for Liens expressly permitted by the Credit Agreement or hereby and any liens or licenses listed on Schedule V attached hereto) (the **"Security Interest"**). Without limiting the foregoing, the Collateral Agent is hereby authorized to file one or more financing statements, continuation statements, filings with the United States Patent and Trademark Office or United States Copyright Office (or similar office in any other country), or any other documents for the purpose of perfecting, confirming, continuing, enforcing or protecting the Security Interest granted by such Grantor, without the signature of such Grantor, naming such Grantor as debtor and the Collateral Agent as secured party.

Notwithstanding any other provision of this Agreement to the contrary, the Collateral shall not include any License which by its terms or the terms governing it

prohibits assignment thereof or the grant of a security interest therein; *provided* that such term or terms are typical or customary in connection with the document or instrument to which they relate.

Each Grantor agrees at all times to keep accurate and complete, in all material respects, accounting records with respect to the Collateral and, on and after the occurrence and during the continuance of a Default, a record of all payments and Proceeds received in respect thereof.

**SECTION 2.02. Further Assurances.** Each Grantor agrees, at its own cost and expense, to promptly execute, acknowledge, deliver and cause to be duly filed all such further instruments and documents and take all such actions as the Collateral Agent may from time to time reasonably request for the better assuring, preserving and perfecting of the Security Interest and the rights and remedies created hereby, including the payment of any fees and taxes required in connection with the execution and delivery of this Agreement, the granting of the Security Interest created hereby, the filing of any financing statements or other documents (including filings with the United States Patent and Trademark Office and the United States Copyright Office or similar offices in any other country) in connection herewith, and the execution and delivery of any document required to supplement this Agreement with respect to any Patents, Trademarks and/or Copyrights applied for, acquired, registered (or for which registration applications are filed) or issued after the date hereof. If any amount payable under or in connection with any of the Collateral shall be or become evidenced by any promissory note or other instrument, upon the request of the Collateral Agent, such note or instrument shall (to the extent not previously pledged and delivered pursuant to the Pledge Agreements) be immediately pledged and delivered to the Collateral Agent, duly endorsed in a manner satisfactory to the Collateral Agent. Each Grantor agrees promptly to notify the Collateral Agent if any material portion of the Collateral is canceled or overturned, opposed, misappropriated, injured, infringed, lost (other than due to expiration of any issued Patent) or, if applicable, diluted.

**SECTION 2.03. Inspection and Verification.** Without limiting the scope of Section 6.07 of the Credit Agreement, the Collateral Agent and such representatives as the Collateral Agent may reasonably designate shall have the right to inspect, at any reasonable times or times, any of the Collateral, all records related thereto (and to make extracts and copies from such records) and the premises upon which any of the Collateral is located, to discuss any Grantor's affairs with the officers of such Grantor and its independent accountants and to verify under reasonable procedures the validity, amount, quality, quantity, value, conditions, and status of or any other matter relating to such Collateral, including, in the case of Collateral in the possession of any third party (with, except after an Event of Default shall have occurred and during the continuance thereof, the consent of such Grantor, which consent shall not be unreasonably withheld), by contacting such person possessing such Collateral for the purpose of making such a verification. The Collateral Agent shall have the absolute right to share any information it gains from such inspection or verification with any or all of the Secured Parties.

**SECTION 2.04. Taxes; Encumbrances.** At its option, the Collateral Agent may discharge past due taxes, assessments, charges, fees, liens, security interests or other encumbrances at any time levied or placed on any of the Collateral and not permitted under this Agreement or other Loan Documents, and may pay for the maintenance and preservation of any of the Collateral to the extent any Grantor fails to do so to the extent required by this Agreement or the other Loan Documents, and such Grantor agrees to reimburse the Collateral Agent on demand for any payment made or any expense incurred by the Collateral Agent pursuant to the foregoing authorization; *provided, however*, that nothing in this Section 2.04 shall be interpreted as excusing any Grantor from the performance of, or imposing any obligation on the Collateral Agent or any other Secured Party to cure or perform, any covenants or other promises of any Grantor with respect to taxes, assessments, charges, fees, liens, security interests or other encumbrances and maintenance as set forth herein or in the other Loan Documents.

**SECTION 2.05. No Assumption of Liability.** The Security Interest is granted as security only and shall not subject any Secured Party to, or in any way alter or modify, any obligation or liability of any Grantor with respect to or arising out of any of the Collateral.

### ARTICLE III

#### Representations and Warranties

**Representations and Warranties.** Each Grantor represents and warrants, as to itself and the Collateral in which the Security Interest is created by it hereunder, that:

**SECTION 3.01. Validity of Patents, Trademarks and Copyrights.** Each of the Patents, Trademarks and Copyrights is subsisting and has not been adjudged invalid or unenforceable, in whole or in part, except as could not reasonably be expected to have a Material Adverse Effect.

**SECTION 3.02. Title and Authority.** Each Grantor has rights in and good title to the Collateral shown on the schedules hereto as being owned by it and has full corporate power and authority to grant to the Collateral Agent (for the ratable benefit of the Secured Parties) the Security Interest in the Collateral pursuant hereto and to execute, deliver and perform its obligations in accordance with the terms of this Agreement, without the consent or approval of any other person other than any consent or approval that has been obtained, except, in each case, as could not reasonably be expected to have a Material Adverse Effect.

**SECTION 3.03. Filings.** (a) Fully executed financing statements containing a description of the Collateral shall promptly following the Closing Date be filed of record in every governmental, municipal or other office in every jurisdiction located within the United States and its respective territories and possessions or such other analogous documents in other countries as are necessary to publish notice of and protect the validity of and to establish a valid and perfected security interest in favor of

the Collateral Agent (for the ratable benefit of the Secured Parties) in respect of the Collateral in which a security interest may be perfected by filing a financing statement or analogous document in the United States and its political subdivisions, territories and possessions pursuant to the Uniform Commercial Code or other applicable law in such jurisdictions or pursuant to applicable law in other countries, and no further or subsequent filing, refile, recording, rerecording, registration or reregistration is necessary in any such jurisdiction, except as provided under applicable law with respect to the filing of continuation statements or other documents of similar effect, except as contemplated by paragraph (b) below and except for filings with respect to after-acquired or after-developed Collateral, with respect to which all necessary actions will be promptly taken subsequent to the acquisition of such after-acquired or after-developed Collateral.

(b) Each Grantor shall ensure and warrants that fully executed security agreements in the form hereof and containing a description of the Collateral shall have been received and recorded within three months after the execution of this Agreement with respect to United States Patents and United States registered Trademarks (and Trademarks for which United States registration applications are pending) and within one month after the execution of this Agreement with respect to United States registered Copyrights by the United States Patent and Trademark Office and the United States Copyright Office pursuant to 35 U.S.C. § 261, 15 U.S.C. § 1060 or 17 U.S.C. § 205 and the regulations thereunder, as applicable, and otherwise as may be required pursuant to the laws of any other country or any political subdivision thereof, to protect the validity and first priority of and to perfect a valid first priority security interest (except for Liens expressly permitted by the Credit Agreement or hereby and any liens or licenses listed on Schedule V attached hereto) in favor of the Collateral Agent (for the ratable benefit of the Secured Parties) in respect of the Collateral in which a security interest may be perfected by filing in the United States and its political subdivisions, territories and possessions, and no further or subsequent filing, refile, recording, rerecording, registration or reregistration is necessary in any such jurisdiction, except as provided under applicable law with respect to the filing of continuation statements and except for such actions as are necessary to perfect the Collateral Agent's first priority security interest with respect to any Collateral (or registration or application for registration thereof) acquired or developed after the date hereof.

**SECTION 3.04. Validity of Security Interests.** This Agreement is effective to create in favor of the Collateral Agent, for the ratable benefit of the Secured Parties, a legal, valid and enforceable security interest in the Collateral, and, when financing statements in appropriate form are filed in the offices specified on Schedule VI hereto and this Agreement is filed in the United States Patent and Trademark Office and the United States Copyright Office, this Agreement will constitute a duly perfected Lien on, and security interest in, all right, title and interest of the Grantors in such Collateral and, to the extent contemplated therein and subject to § 9-315(c) of the UCC, the proceeds thereof, in each case prior and superior in right to any other person (it being understood that subsequent recordings in the United States Patent and Trademark Office and the United States Copyright Office may be necessary to perfect a lien on registered trademarks, trademark applications and copyrights acquired or developed by the Grantors after the date hereof), other than with respect to the rights of persons pursuant to Liens

expressly permitted by the Credit Agreement or hereby and any liens or licenses listed on Schedule V attached hereto).

**SECTION 3.05. Information Regarding Names and Locations.** Each Grantor has disclosed in writing to the Collateral Agent on Schedule IV attached hereto any material trade names used to identify it in its business or in the ownership of its properties during the past five years.

**SECTION 3.06. Absence of Other Liens.** The Collateral is owned by the Grantors free and clear of any Lien of any nature whatsoever (except for Liens expressly permitted by the Credit Agreement or hereby and any liens or licenses listed on Schedule V attached hereto). Other than as contemplated hereby and by the other Loan Documents, and except as permitted therein, the Grantors have not in respect of the collateral filed (a) any financing statement or analogous document under the Uniform Commercial Code, (b) any collateral assignment in which any Grantor assigns the Collateral or any security agreement or any similar instrument covering any Collateral with the United States Patent and Trademark Office, the United States Copyright Office or any similar office in any other country or political subdivision thereof or (c) any collateral assignment in which any Grantor assigns the Collateral or any security agreement or similar instrument covering any Collateral with any foreign governmental, municipal or other office.

## ARTICLE IV

### Covenants

**SECTION 4.01. Covenants Regarding Patent, Trademark and Copyright Collateral.** (a) Each Grantor (either itself or through licensees) will, for each Patent, not do any act, or omit to do any act, whereby any Patent that is material to the conduct of the Grantors' businesses, taken as a whole, may become invalidated or dedicated to the public, and shall continue to mark, to the extent consistent with past practices and good business judgment, any products covered by a material Patent with the relevant patent number as necessary and sufficient to establish and preserve such Grantor's material rights under applicable patent laws.

(b) Each Grantor (either itself or through its licensees or its sublicensees) will, for each Trademark material to the conduct of the Grantors' businesses, taken as a whole, to the extent consistent with past practices and good business judgment, (i) maintain such Trademark in full force free from any material claim of abandonment or invalidity for nonuse, (ii) maintain the quality of products and services offered under such Trademark to the extent that the failure to do so would result in a Material Adverse Effect, (iii) display such Trademark with notice of federal or foreign registration to the extent necessary and sufficient to establish and preserve such Grantor's material rights under applicable law and (iv) not knowingly use or knowingly permit the use of such Trademark in violation of any material third-party rights.

(c) Each Grantor (either itself or through licensees) will, for each work covered by a material Copyright, to the extent consistent with past practices and good business judgment, continue to publish, reproduce, display, adopt and distribute the work with appropriate copyright notice as necessary and sufficient to establish and preserve such Grantor's material rights under applicable copyright laws.

(d) Each Grantor shall notify the Collateral Agent immediately if it knows or has reason to know that any Patent, Trademark or Copyright material to the conduct of the Grantors' businesses, taken as a whole, may become abandoned, lost or dedicated to the public, or of any adverse determination or development (including the institution of, or any such determination or development in, any proceeding in the United States Patent and Trademark Office, United States Copyright Office or any court or similar office of any country) regarding such Grantor's ownership of any such Patent, Trademark or Copyright, its right to register the same, or to keep and maintain the same.

(e) In no event shall any Grantor, either itself or through any agent, employee, licensee or designee, file an application for any Patent, Trademark or Copyright (or for the registration of any Trademark or Copyright) with the United States Patent and Trademark Office, United States Copyright Office or any office or agency in any political subdivision of the United States or in any other country or any political subdivision thereof, unless it promptly informs the Collateral Agent, and, upon request of the Collateral Agent, executes and delivers any and all agreements, instruments, documents and papers as the Collateral Agent may reasonably request to evidence (and, in the case of applications for Trademarks with the United States Patent and Trademark Office, perfect) the Collateral Agent's security interest in such Patent, Trademark or Copyright of such Grantor and the goodwill and general intangibles of such Grantor relating thereto or represented thereby, and such Grantor hereby appoints the Collateral Agent as its attorney-in-fact to execute and file such writings for the foregoing purposes, all acts of such attorney being hereby ratified and confirmed; such power, being coupled with an interest, is irrevocable until the Obligations are paid in full.

(f) Each Grantor will take all necessary steps that are consistent with the practice in any proceeding before the United States Patent and Trademark Office, United States Copyright Office or any office or agency in any political subdivision of the United States or in any other country or any political subdivision thereof, to maintain and pursue each material application (and to obtain the relevant grant or registration) relating to the Patents, Trademarks and/or Copyrights which are material to the Grantors' businesses, taken as a whole, to maintain each issued Patent and each registration of the Trademarks and Copyrights that is material to the conduct of the Grantors' businesses, taken as a whole, including timely filings of applications for renewal, affidavits of use, affidavits of incontestability and payment of maintenance fees, and, if consistent with good business judgment, to initiate opposition, interference and cancelation proceedings against third parties.

(g) In the event that any Collateral consisting of a Patent, Trademark or Copyright material to the conduct of the Grantors' businesses, taken as a whole, is believed by the Grantor that has created the Security Interest in such Collateral pursuant

hereto to have been infringed, misappropriated or diluted by a third party in any material respect, such Grantor shall notify the Collateral Agent promptly after it learns thereof and shall, if consistent with good business judgment, promptly sue for infringement, misappropriation or dilution and to recover any and all damages for such infringement, misappropriation or dilution, and take such other actions as are appropriate under the circumstances to protect such Collateral.

**SECTION 4.02. Protection of Security.** Each Grantor shall, at its own cost and expense, take any and all reasonable actions necessary to defend title to the Collateral against all persons, to properly maintain, protect and preserve the Collateral and to defend the Security Interest of the Collateral Agent in the Collateral and the priority thereof against any Lien not permitted under the Credit Agreement or this Agreement, in each case except as otherwise permitted by the Credit Agreement or this Agreement.

**SECTION 4.03. Continuing Obligations of the Grantors.** Each Grantor shall remain liable to observe and perform all the conditions and obligations to be observed and performed by it under each License, contract, agreement, interest or obligation relating to the Collateral, all in accordance with the terms and conditions thereof, to the extent consistent with good business practice. Without limiting the foregoing, the Collateral Agent shall have no obligation or liability under any License by reason of or arising out of this Agreement or the granting or the assignment to the Collateral Agent of the Security Interest or the receipt by the Collateral Agent of any payment related to any License pursuant hereto, nor shall the Collateral Agent be required or obligated in any manner to perform or fulfill any of the obligations of any Grantor under or pursuant to any License, or to make any payment, or to make any inquiry as to the nature or the sufficiency of any payment received by it or the sufficiency of any performance by any party under any License, or to present or file any claim, or to take any action to collect or enforce any performance or the payment of any amounts that may have been assigned to it or to which it may be entitled at any time or times.

**SECTION 4.04. Use and Disposition of Collateral.** A Grantor shall not (i) make or permit to be made an assignment, pledge or hypothecation of the Collateral, and shall grant no other security interest in the Collateral (except for Liens expressly permitted by the Credit Agreement or hereby and any liens or licenses listed on Schedule V attached hereto) or (ii) make or permit to be made any transfer of the Collateral, and shall remain at all times in possession thereof, other than transfers to the Collateral Agent pursuant to the provisions hereof; notwithstanding the foregoing, a Grantor may use and dispose of the Collateral in any lawful manner permitted by the provisions of this Agreement, the Credit Agreement or any other Loan Document, unless the Collateral Agent shall, after an Event of Default shall have occurred and during the continuance thereof, notify the Borrower not to sell, convey, lease, assign, transfer or otherwise dispose of any Collateral except with respect to any transfer between the Borrower or a Wholly Owned Subsidiary that is a Grantor and the Borrower or a Wholly Owned Subsidiary that is a Grantor.



**SECTION 4.05. Locations of Collateral; Place of Business.** (a) Each Grantor agrees, at such time or times as the Collateral Agent may reasonably request, promptly to prepare and deliver to the Collateral Agent a duly certified schedule or schedules in form reasonably satisfactory to the Collateral Agent, showing the identity, amount and location (to the extent practicable) of any and all Collateral.

(b) Each Grantor agrees not to change, or permit to be changed, its jurisdiction of organization or its name or the names used to identify it in its business or in the ownership of its properties unless all filings under the Uniform Commercial Code or under other applicable laws that are required to be made with respect to the Collateral have been made and the Collateral Agent, for the ratable benefit of the Secured Parties, has a valid, legal and perfected first priority security interest in the Collateral, (except for Liens expressly permitted by the Credit Agreement or hereby and any liens or licenses listed on Schedule V attached hereto) or hereby and any liens or licenses listed on Schedule V attached hereto, and prior notice thereof has been given to the Collateral Agent along with copies of all such filings.

**SECTION 4.06. Future Rights.** (a) If, before the time that all Obligations shall have been paid in full, no Letters of Credit are outstanding and the Secured Parties no longer have Commitments under the Credit Agreement, any Grantor shall obtain rights to any material asset or item that may be considered Collateral, the provisions of Section 2.01 shall automatically apply thereto and each Grantor shall give to the Collateral Agent prompt notice thereof in writing.

(b) With respect to any such material asset or item that may be considered Collateral as set forth in paragraph (a) above, each Grantor shall follow the procedures set forth in Section 3.03, as applicable, to ensure that the Collateral Agent's valid first priority security interest therein is perfected (except for Liens expressly permitted by the Credit Agreement or hereby and any liens or licenses listed on Schedule V attached hereto).

**SECTION 4.07. Assignment of Licenses.** Upon and during the continuance of an Event of Default and at the reasonable request of the Collateral Agent, each Grantor shall use its reasonable efforts to obtain all requisite consents or approvals by the licensor of each Copyright License, Patent License or Trademark License to effect the assignment of all of the Grantors' rights, title and interest thereunder to the Collateral Agent or its designee.

**SECTION 4.08. Collateral Agent's Liabilities and Expenses; Indemnification.** (a) Notwithstanding anything to the contrary provided herein, the Collateral Agent assumes no liabilities with respect to any claims regarding each Grantor's ownership (or purported ownership) of, or rights or obligations (or purported rights or obligations) arising from, the Collateral or any use (or actual or alleged misuse), license or sublicense thereof by any Grantor or any licensee of such Grantor, whether arising out of any past, current or future event, circumstance, act or omission or otherwise, or any claim, suit, loss, damage, expense or liability of any kind or nature arising out of or in connection with the Collateral or the production, marketing, delivery,

sale or provision of goods or services under or in connection with any of the Collateral. As between the Secured Parties and the Grantors, all of such liabilities shall be borne exclusively by the Grantors.

(b) Each Grantor hereby agrees to pay all expenses of the Collateral Agent and to indemnify the Collateral Agent with respect to any and all losses, claims, damages, liabilities and related expenses in respect of this Agreement or the Collateral, in each case to the extent the Borrower is required to do so pursuant to Section 10.03 of the Credit Agreement.

(c) Any amounts payable as provided hereunder shall be additional Obligations secured hereby and by the other Security Documents. Without prejudice to the survival of any other agreements contained herein, all indemnification and reimbursement obligations contained herein shall survive the payment in full of the principal and interest under the Credit Agreement, the expiration of the Letters of Credit and the termination of the Commitments or this Agreement.

## ARTICLE V

### Remedies

SECTION 5.01. Power of Attorney. Upon the occurrence and during the continuance of any Event of Default, subject to prior written notice to the Borrower, the Collateral Agent shall have the right, as the true and lawful attorney-in-fact of the Grantors, with power of substitution for the Grantors and in the Grantors' names, the Collateral Agent's name or otherwise, for the use and benefit of the Secured Parties: (a) upon prior notice from the Collateral Agent, to receive, endorse, assign and/or deliver any and all notes, acceptances, checks, drafts, money orders or other evidences of payment relating to the Collateral or any part thereof; (b) to demand, collect, receive payment of, give receipt for and give discharges and releases of all or any of the Collateral; (c) to sign the name of any Grantor on any invoice relating to any of the Collateral; (d) to commence and prosecute any and all suits, actions or proceedings at law or in equity in any court of competent jurisdiction to collect or otherwise realize on all or any of the Collateral or to enforce any rights in respect of any Collateral; (e) to settle, compromise, compound, adjust or defend any actions, suits or proceedings relating to or pertaining to all or any of the Collateral; (f) to license or, to the extent permitted by any applicable law, sublicense, whether general, special or otherwise, and whether on an exclusive or non-exclusive basis, any of the Collateral throughout the world for such term or terms, on such conditions, and in such manner, as the Collateral Agent shall determine (other than in violation of any then existing licensing arrangements to the extent that waivers or other adequate provision cannot be secured therefor); and (g) generally to use, sell, assign, transfer, pledge, make any agreement with respect to or otherwise deal with all or any of the Collateral, and to do all other acts and things necessary to carry out the purposes of this Agreement, as fully and completely as though the Collateral Agent were the absolute owner of the Collateral for all purposes; *provided, however*, that except as

provided for by law or the Uniform Commercial Code as in effect in the State of New York or its equivalent in other jurisdictions, nothing herein contained shall be construed as requiring or obligating the Collateral Agent to make any commitment or to make any inquiry as to the nature or sufficiency of any payment received by the Collateral Agent, or to present or file any claim or notice, or to take any action with respect to the Collateral or any part thereof or the moneys due or to become due in respect thereof or any property covered thereby, and no action taken by the Collateral Agent or omitted to be taken with respect to the Collateral or any part thereof shall give rise to any defense, counterclaim or offset in favor of any Grantor or to any claim or action against the Collateral Agent. It is understood and agreed that the appointment of the Collateral Agent as the attorney-in-fact of the Grantors for the purposes set forth above in this Section 5.01 is coupled with an interest and is irrevocable. The provisions of this Section 5.01 shall in no event relieve the Grantors of any of their obligations hereunder or under the Credit Agreement or any other Loan Document with respect to the Collateral or any part thereof or impose any obligation on the Collateral Agent or the Secured Parties to proceed in any particular manner with respect to the Collateral or any part thereof, or in any way limit the exercise by the Collateral Agent or any Secured Party of any other or further right that it may have on the date of this Agreement or hereafter, whether hereunder or by law or by the Security Agreement, or otherwise.

**SECTION 5.02. Other Remedies upon Default.** Upon the occurrence and during the continuance of an Event of Default, each Grantor expressly agrees that, subject to prior written notice to the Borrower, the Collateral Agent on demand shall have the right to take any or all of the following actions at the same or different times: with or without legal process and with or without previous notice or demand for performance, to take possession of all tangible manifestations or embodiments of the Collateral and documentation relating thereto and all business records, documents, files, prints and labels with respect to the Collateral, and without liability for trespass to enter any premises where such tangible manifestations or embodiments, business records, documents, files, prints and labels with respect to the Collateral may be located for the purpose of taking possession of or removing such tangible manifestations or embodiments, business records, documents, files, prints and labels with respect to the Collateral, and, generally, to exercise any and all rights afforded to a secured party under the Uniform Commercial Code or other law applicable to any part of the Collateral. Subject to and without limiting the generality of the foregoing, each Grantor agrees that the Collateral Agent shall have the right, subject to the mandatory requirements of applicable law, to sell or otherwise dispose of all or any part of the Collateral, at public or private sale or at any broker's board or on any exchange, for cash, upon credit or for future delivery as the Collateral Agent shall deem appropriate. The Collateral Agent shall have the right to assign, transfer and deliver to the purchaser or purchasers thereof the Collateral so sold. Each such purchaser at any such sale shall hold the property sold absolutely, free from any claim or right on the part of any Grantor, and each Grantor hereby waives (to the extent permitted by law) all rights of redemption, stay and appraisal that such Grantor now has or may at any time in the future have under any rule of law or statute now existing or hereafter enacted.

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The Collateral Agent shall give the Grantors at least 10 days' written notice (which each Grantor agrees is reasonable notice within the meaning of Section 9-611 of the Uniform Commercial Code as in effect in the State of New York or its equivalent in other jurisdictions) of the Collateral Agent's intention to make any sale of Collateral. Such notice, in the case of a public sale, shall state the time and place for such sale and, in the case of a sale at a broker's board or on an exchange, shall state the board or exchange at which such sale is to be made and the day on which the Collateral, or portion thereof, will first be offered for sale at such board or exchange. Any such public sale shall be held at such time or times within ordinary business hours and at such place or places as the Collateral Agent may fix and state in the notice (if any) of such sale. At any such sale, the Collateral, or portion thereof, to be sold may be sold in one lot as an entirety or in separate parcels, as the Collateral Agent may (in its sole and absolute discretion) determine. The Collateral Agent shall not be obligated to make any sale of any Collateral if it shall determine not to do so, regardless of the fact that notice of sale of such Collateral shall have been given. The Collateral Agent may, without notice or publication, adjourn any public or private sale or cause the same to be adjourned from time to time by announcement at the time and place fixed for sale, and such sale may, without further notice, be made at the time and place to which the same was so adjourned. In case any sale of all or any part of the Collateral is made on credit or for future delivery, the Collateral so sold may be retained by the Collateral Agent until the sale price is paid by the purchaser or purchasers thereof, but the Collateral Agent shall not incur any liability in case any such purchaser or purchasers shall fail to take up and pay for the Collateral so sold and, in case of any such failure, such Collateral may be sold again upon like notice to the Grantors. At any public sale made pursuant to this Section 5.02, the Collateral Agent or any Secured Party may bid for or purchase, free from any right of redemption, stay, valuation or appraisal on the part of any Grantor (all said rights being also hereby waived and released to the extent permitted by law), the Collateral or any part thereof offered for sale and may make payment on account thereof by using any claim then due and payable to the Collateral Agent or any Secured Party from any Grantor as a credit against the purchase price, and the Collateral Agent or any Secured Party may, upon compliance with the terms of sale, hold, retain and dispose of such property without further accountability to such Grantor therefor. As an alternative to exercising the power of sale herein conferred upon it, the Collateral Agent may proceed by a suit or suits at law or in equity to foreclose this Agreement and to sell the Collateral or any portion thereof pursuant to a judgment or decree of a court or courts having competent jurisdiction or pursuant to a proceeding by a court-appointed receiver.

**SECTION 5.03. Application of Proceeds of Sale.** The proceeds of any sale of Collateral, as well as any Collateral consisting of cash, shall be applied by the Collateral Agent as follows:

*First*, to the payment of all costs and expenses incurred by the Administrative Agent or the Collateral Agent (in its capacity as such hereunder or under any other Loan Document) in connection with such collection or sale or otherwise in connection with this Agreement or any of the Obligations, including all reasonable court costs and the reasonable fees and expenses of its agents and legal counsel, the repayment of all advances made by the Collateral Agent

hereunder or under any other Loan Document on behalf of any Grantor and any other costs or expenses incurred in connection with the exercise of any right or remedy hereunder or under any other Loan Document;

*Second*, to the payment of all amounts of the Obligations owed to the Secured Parties in respect of Loans made by them and outstanding and amounts owing in respect of any LC Disbursement or Letter of Credit or under any Cash Management Arrangement, Commodity Rate Protection Agreement or Interest/Exchange Rate Protection Agreement, pro rata as among the Secured Parties in accordance with the amount of such Obligations owed them;

*Third*, to the payment and discharge in full of the Obligations (other than those referred to above), pro rata as among the Secured Parties in accordance with the amount of such Obligations owed to them; and

*Fourth*, after payment in full of all Obligations, to the applicable Grantor, or its successor or assign thereof, or to whomsoever may be lawfully entitled to receive the same or as a court of competent jurisdiction may direct, any Collateral then remaining.

The Collateral Agent shall have absolute discretion as to the time of application of any such proceeds, moneys or balances in accordance with this Agreement. Upon any sale of the Collateral by the Collateral Agent (including pursuant to a power of sale granted by statute or under a judicial proceeding), the receipt of the Collateral Agent or of the officer making the sale shall be a sufficient discharge to the purchaser or purchasers of the Collateral so sold and such purchaser or purchasers shall not be obligated to see to the application of any part of the purchase money paid over to the Collateral Agent or such officer or be answerable in any way for the misapplication thereof.

**SECTION 5.04. Grant of License to Use Patent, Trademark and Copyright Collateral.** For the purpose of enabling the Collateral Agent to exercise rights and remedies under this Article V at such time as the Collateral Agent shall be lawfully entitled to exercise such rights and remedies, each Grantor hereby grants to the Collateral Agent an irrevocable, non-exclusive license (exercisable without payment of royalty or other compensation to such Grantor) to use, license or sublicense any of the Collateral now owned or hereafter acquired by such Grantor, and wherever the same may be located, and including in such license reasonable access to all media in which any of the licensed items may be recorded or stored. The use of such license by the Collateral Agent shall be exercised, at the option of the Collateral Agent for any purpose appropriate in connection with the exercise of remedies hereunder, only upon the occurrence and during the continuance of an Event of Default; *provided* that any license, sublicense or other transaction entered into by the Collateral Agent in accordance herewith shall be binding upon such Grantor notwithstanding any subsequent cure of an Event of Default. The Collateral Agent agrees to apply the net proceeds received from any license as provided in Section 5.03.

## ARTICLE VI

### Miscellaneous

**SECTION 6.01. Notices.** Notices and other communications provided for herein shall be given (i) in the case of communications and notices to GrafTech, Global, the Borrower or any Secured Party, as provided in the Credit Agreement and (ii) in the case of communications and notices to any other Grantor, as provided in the Guarantee Agreement.

**SECTION 6.02. Successors and Assigns.** (a) Whenever in this Agreement any of the parties hereto is referred to, such reference shall be deemed to include the permitted successors and assigns of such party, and the terms "Lender", "Issuing Bank" and "Secured Party" shall include each permitted successor and assignee of any Lender, Issuing Bank or Secured Party permitted under Section 10.04 of the Credit Agreement and all covenants, promises and agreements by or on behalf of the Grantors or the Collateral Agent or that are contained in this Agreement shall bind and inure to the benefit of their respective permitted successors and permitted assigns referred to above.

(b) No Grantor shall assign or delegate any of its rights and duties hereunder.

**SECTION 6.03. APPLICABLE LAW.** THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, EXCEPT TO THE EXTENT THAT FEDERAL LAW OR LAWS OF ANOTHER STATE OR FOREIGN JURISDICTION MAY APPLY TO PATENTS, TRADEMARKS, COPYRIGHTS, OTHER COLLATERAL OR REMEDIES.

**SECTION 6.04. Waivers; Amendment.** (a) No failure or delay of the Collateral Agent in exercising any power or right hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other right or power. The rights and remedies of the Collateral Agent hereunder and of other Secured Parties under the Loan Documents are cumulative and are not exclusive of any rights or remedies that they would otherwise have. No waiver of any provisions of this Agreement or any other Loan Document or consent to any departure by any Grantor therefrom shall in any event be effective unless the same shall be permitted by paragraph (b) below, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. No notice to or demand on any Grantor in any case shall entitle such Grantor to any other or further notice or demand in similar or other circumstances.

(b) Neither this Agreement nor any provision hereof may be waived, amended or modified except pursuant to an agreement or agreements in writing entered into between any Grantor and the Collateral Agent, with the prior written consent of the Required Lenders or without such consent if so provided in the Credit Agreement;

*provided, however*, that except as provided herein or in the other Loan Documents, no such agreement shall amend, modify, waive or otherwise affect the rights or duties of the Collateral Agent hereunder without the prior written consent of the Collateral Agent.

**SECTION 6.05. Security Interest Absolute.** All rights of the Collateral Agent hereunder, the security interests granted hereunder and all obligations of the Grantors hereunder shall be absolute and unconditional.

**SECTION 6.06. Survival of Agreement.** All covenants, agreements, representations and warranties made by any Grantor herein and in the certificates or other instruments prepared or delivered in connection with or pursuant to this Agreement or any other Loan Document shall be considered to have been relied upon by the Secured Parties and shall survive the making by the Lenders of the Loans, the execution and delivery to the Lenders of the Loan Documents and the issuance by the Issuing Bank of the Letters of Credit, regardless of any investigation made by the Secured Parties or on their behalf, and shall continue in full force and effect so long as the principal of or any accrued interest on any Loan or L/C Disbursement or any fee or any other amount payable under or in respect of this Agreement or any other Loan Document is outstanding and unpaid and so long as the Commitments have not been terminated.

**SECTION 6.07. Binding Effect.** This Agreement shall become effective as to any Grantor when a counterpart hereof executed on behalf of such Grantor shall have been delivered to the Collateral Agent.

**SECTION 6.08. Termination; Release.** (a) This Agreement and the security interests granted hereby shall terminate when all the Obligations have been indefeasibly paid in full, the Commitments have been terminated and no Letters of Credit are outstanding.

(b) Notwithstanding anything herein to the contrary, if all the obligations in respect of any Cash Management Arrangement, Commodity Rate Protection Agreement or Interest/Exchange Rate Protection Agreement, if any, have been secured on a ratable basis with the obligations under a refinancing or replacement of the Credit Agreement, then this Agreement and the security interest created hereunder shall terminate when all the obligations under the Credit Agreement have been fully and indefeasibly paid and when the Secured Parties have no further Commitments under the Credit Agreement and no Letters of Credit are outstanding.

(c) A Subsidiary Grantor shall automatically be released from its obligations hereunder and the Security Interest in the Collateral of such Subsidiary Grantor shall be automatically released in the event that a portion of the Capital Stock of such Subsidiary Grantor shall be sold, transferred or otherwise disposed of to a person that is not an Affiliate of GrafTech in a transaction permitted pursuant to Section 7.05 of the Credit Agreement that will result in such Subsidiary Grantor ceasing to be a Subsidiary after giving effect to such disposition. Any Collateral granted hereunder shall be released (automatically and without further action on the part of the Collateral Agent) upon the sale, transfer or other disposition of such Collateral to a transferee who is not a

**"Grantor" hereunder, to the extent that such sale, transfer or other disposition is permitted under the Credit Agreement.**

**(d) In connection with any termination or release pursuant to paragraphs (a), (b) or (c) above, the Collateral Agent shall execute and deliver to each Grantor, at such Grantor's expense, all Uniform Commercial Code termination statements, documents in order to terminate any United States Patent and Trademark Office filings and similar documents that such Grantor shall reasonably request to evidence such termination or release. Any execution and delivery of termination statements or documents pursuant to this Section 6.08 shall be without recourse to or warranty by the Collateral Agent.**

**SECTION 6.09. WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT OR ANY OF THE OTHER LOAN DOCUMENTS. EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS, AS APPLICABLE, BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 6.09.**

**SECTION 6.10. Severability. In the event any one or more of the provisions contained in this Agreement or in any other Loan Document should be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein and therein shall not in any way be affected or impaired thereby (it being understood that the invalidity of a particular provision in a particular jurisdiction shall not in and of itself affect the validity of such provision in any other jurisdiction). The parties shall endeavor in good-faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.**

**SECTION 6.11. Jurisdiction; Consent to Service of Process. (a) Each Grantor hereby irrevocably and unconditionally submits, for itself and its property, to the nonexclusive jurisdiction of any New York State court or Federal court of the United States of America sitting in New York City, and any appellate court from any thereof, in any action or proceeding arising out of or relating to this Agreement or the other Loan Documents, or for recognition or enforcement of any judgment, and each of the parties hereto hereby irrevocably and unconditionally agrees that all claims in respect of any such action or proceeding may be heard and determined in such New York State or, to the extent permitted by law, in such Federal court. Each of the parties hereto agrees that**



a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law. Nothing in this Agreement shall affect any right that any Loan Party or Secured Party may otherwise have to bring any action or proceeding relating to this Agreement or the other Loan Documents against any Grantor or any Secured Party or its properties in the courts of any jurisdiction.

(b) Each Grantor and each Secured Party hereby irrevocably and unconditionally waives, to the fullest extent it may legally and effectively do so, any objection that it may now or hereafter have to the laying of venue of any suit, action or proceeding arising out of or relating to this Agreement or the other Loan Documents in any New York State or Federal court. Each of the parties hereto hereby irrevocably waives, to the fullest extent permitted by law, the defense of an inconvenient forum to the maintenance of such action or proceeding in any such court.

(c) Each party to this Agreement irrevocably consents to service of process by mail at the address provided for notices in Section 6.01. Nothing in this Agreement will affect the right of any party to this Agreement to serve process in any other manner permitted by law.

**SECTION 6.12. Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall constitute an original, but all of which, when taken together shall constitute but one instrument, and shall become effective as provided in Section 6.07.

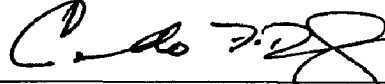
**SECTION 6.13. Headings.** Article and Section headings used herein are for convenience of reference only, are not part of this Agreement and are not to affect the construction of, or to be taken into consideration in interpreting, this Agreement.

**SECTION 6.14. Additional Grantors.** Pursuant to Section 6.11 of the Credit Agreement (and the requirement thereunder that all actions be taken in order to cause the Collateral and Guarantee Requirement to be satisfied at all times), certain Subsidiaries are required to enter into this Agreement as a Grantor upon the occurrence of certain events. Upon execution and delivery, after the date hereof, by the Collateral Agent and such Subsidiary of an instrument in the form of Annex I, such Subsidiary shall become a Grantor hereunder with the same force and effect as if originally named as a Grantor hereunder. The execution and delivery of any such instrument shall not require the consent of any Grantor hereunder. The rights and obligations of each Grantor hereunder shall remain in full force and effect notwithstanding the addition of any new Grantor as a party to this Agreement.

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

GRAFTECH INTERNATIONAL LTD.  
GRAFTECH GLOBAL ENTERPRISES  
INC.  
GRAFTECH FINANCE INC.

by



Name: Corrado F. De Gasperis  
Title: Vice President, Chief  
Financial Officer and Chief  
Information Officer

EACH OF THE SUBSIDIARY  
GRANTORS LISTED ON SCHEDULE VII  
HERETO,

by

Name: Karen G. Narwold  
Title: Attorney-in-Fact

JPMORGAN CHASE BANK, N.A., as  
Collateral Agent,

by

Name:  
Title:

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


GRAFTECH INTERNATIONAL LTD.  
GRAFTECH GLOBAL ENTERPRISES  
INC.  
GRAFTECH FINANCE INC.

by

\_\_\_\_\_  
Name: Corrado F. De Gasperis  
Title: Vice President, Chief  
Financial Officer and Chief  
Information Officer

EACH OF THE SUBSIDIARY  
GRANTORS LISTED ON SCHEDULE VII  
HERE TO,

by

  
\_\_\_\_\_  
Name: Karen G. Narwold  
Title: Attorney-in-Fact

JPMORGAN CHASE BANK, N.A., as  
Collateral Agent,

by

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

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

GRAFTECH INTERNATIONAL INC.  
GRAFTECH GLOBAL ENTERPRISES  
INC.  
GRAFTECH FINANCE INC.

by

\_\_\_\_\_  
Name: Corrado F. De Gasperis  
Title: Vice President, Chief  
Financial Officer and Chief  
Information Officer

EACH OF THE SUBSIDIARY  
GRANTORS LISTED ON SCHEDULE VII  
HERETO,

by

\_\_\_\_\_  
Name: Karen G. Narwold  
Title: Attorney-in-Fact

JPMORGAN CHASE BANK, N.A., as  
Collateral Agent,

by

\_\_\_\_\_  
Name: JOHN C. RIOS  
Title: VICE PRESIDENT

**UCAR CARBON COMPANY INC.**  
**U.S. Granted Patent List**  
  
**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

Country	Patent Number	Grant Date	Filing Date	Status
US	5167796	01-Dec-1992	22-May-1989	GRANTED
<b>Title: METHOD FOR PRODUCING LOW SULFUR PREMIUM COKE FROM HIGH SULFUR DECANT OILS</b>				

US	4729689	08-Mar-1988	13-Dec-1984	GRANTED
<b>Title: ELECTRODE MEMBER AND PROCESS FOR THE PRODUCTION THEREOF</b>				

US	4726995	23-Feb-1988	13-Nov-1985	GRANTED
<b>Title: OXIDATION RETARDED GRAPHITE OR CARBON ELECTRODE AND METHOD FOR PRODUCING THE ELECTRODE</b>				

US	5413738	09-May-1995	22-Oct-1985	GRANTED
<b>Title: CARBON-CARBON COMPOSITES CONTAINING POORLY GRAPHITIZING PITCH AS A BINDER AND/OR IMPREGNANT HAVING A REDUCED COEFFICIENT OF THERMAL EXPANSION AND IMPROVED FLEXURAL STRENGTH</b>				

US	5688155	18-Nov-1997	24-Jan-1995	GRANTED
<b>Title: CARBON-CARBON COMPOSITES CONTAINING POORLY GRAPHITIZING PITCH AS A BINDER AND/OR IMPREGNANT HAVING A REDUCED COEFFICIENT OF THERMAL EXPANSION AND IMPROVED FLEXURAL STRENGTH</b>				

**UCAR CARBON COMPANY INC.  
U.S. Granted Patent List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Patent Number	Grant Date	Filing Date	Status
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US	4875979	24-Oct-1989	07-Mar-1988	GRANTED
<b>Title:</b> TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING				

US	5607770	04-Mar-1997	26-May-1995	GRANTED
<b>Title:</b> CARBON-CARBON COMPOSITES CONTAINING POORLY GRAPHITIZING PITCH AS A BINDER AND/OR IMPREGNANT HAVING A REDUCED COEFFICIENT OF THERMAL EXPANSION AND IMPROVED FLEXURAL STRENGTH				

US	4847021	11-Jul-1989	03-May-1988	GRANTED
<b>Title:</b> PROCESS FOR PRODUCING HIGH DENSITY CARBON AND GRAPHITE ARTICLES				

US	4725161	16-Feb-1988	05-Sep-1986	GRANTED
<b>Title:</b> ELECTRODE JOINT				

US	4844740	04-Jul-1989	14-Apr-1987	GRANTED
<b>Title:</b> HIGH COKING VALUE BINDER SYSTEM				

US	4895713	23-Jan-1990	16-Mar-1989	GRANTED
<b>Title:</b> INTERCALATION OF GRAPHITE				

US	GRER 4813805	21-Mar-1989	05-May-1988	GRANTED
<b>Title:</b> JOINT FOR CARBON ELECTRODES				

UCAR CARBON COMPANY INC.  
U.S. Granted Patent List  
SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT

Country	Patent Number	Grant	Filing	Status
US	5019426	28-May-1991	23-Nov-1988	GRANTED
Title: TOPICAL TREATMENT FOR SEALING CARBON AND GRAPHITE SURFACES				

US 5110359 05-May-1992 10-Dec-1990 GRANTED  
Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING

US -3 5118287 02-Jun-1992 05-Sep-1991 GRANTED  
Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING

US -1 5143749 01-Sep-1992 01-Jul-1991 GRANTED  
Title: METHOD FOR TREATING A GRAPHITE OR CARBON BODY TO FORM A  
PROTECTIVE COATING

US 5002981 26-Mar-1991 07-Dec-1988 GRANTED  
Title: HIGH STRENGTH CARBONACEOUS CEMENT

US 5099438 24-Mar-1992 28-Aug-1989 GRANTED  
Title: METHOD OF ON-LINE MONITORING OF AN ELECTRIC ARC FURNACE AND  
METHOD OF CONTROL

**UCAR CARBON COMPANY INC.**  
**U.S. Granted Patent List**  
  
**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

Country	Client	Patent Number	Grant Date	Filing Date	Status
US		5478442	26-Dec-1995	15-Feb-1995	GRANTED
Title: APPARATUS FOR TREATMENT OF PETROLEUM COKES WITH A PUFFING INHIBITOR IN A ROTARY CALCINER					

US 5167868 01-Dec-1992 21-Feb-1991 GRANTED  
Title: CONDUCTIVE EXPANDABLE CARBONACEOUS PASTE MATERIAL

US 5115447 19-May-1992 10-Jan-1991 GRANTED  
Title: IMPROVEMENT IN ARC FURNACE REGULATOR PERFORMANCE

US 5476679 19-Dec-1995 04-May-1995 GRANTED  
Title: A GLASSY CARBON COATED GRAPHITE COMPONENT FOR USE IN THE  
PRODUCTION OF SILICON CRYSTAL GROWTH

US 5280063 18-Jan-1994 17-Apr-1992 GRANTED  
Title: ROOM TEMPERATURE SETTING CARBONACEOUS CEMENT WITH  
INCREASED ELECTRICAL CONDUCTIVITY AND FLEXURAL STRENGTH

US 5373051 13-Dec-1994 12-Oct-1993 GRANTED  
Title: ROOM TEMPERATURE SETTING CARBONACEOUS CEMENT WITH  
INCREASED ELECTRICAL CONDUCTIVITY AND FLEXURAL STRENGTH



**UCAR CARBON COMPANY INC.  
U.S. Granted Patent List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Client	Patent Number	Grant Date	Filing Date	Status
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US	-3	5550176	27-Aug-1996	23-Mar-1995	GRANTED
<b>Title:</b> ROOM TEMPERATURE SETTING CARBONACEOUS CEMENT WITH INCREASED ELECTRICAL CONDUCTIVITY AND FLEXURAL STRENGTH					

US		5336015	09-Aug-1994	25-Nov-1992	GRANTED
<b>Title:</b> SELF CENTERING ELECTRODE JOINT					

US		5415755	16-May-1995	17-Nov-1993	GRANTED
<b>Title:</b> FASTENING ELEMENT FOR SECURING ELECTRODE JOINTS					

US		5534133	09-Jul-1996	17-Nov-1994	Granted
<b>Title:</b> CONTINUOUS METHOD FOR INCREASING THE Q.I. CONCENTRATION OF LIQUID TAR WHILE CONCURRENTLY PRODUCING A Q.I. FREE TAR					

US		5751759	12-May-1998	31-May-1995	Granted
<b>Title:</b> PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES					

US		5631919	20-May-1997	21-Nov-1995	Granted
<b>Title:</b> APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES					

**UCAR CARBON COMPANY INC.  
U.S. Granted Patent List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Client	Patent Number	Grant Date	Filing Date	Status
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US		5843298	01-Dec-1998	27-Sep-1996	Granted
Title: PRODUCTION OF SOLIDS-FREE COAL TAR PITCH					

US		6395220	28-May-2002	02-Nov-1999	Granted
Title: CARBON FIBER BINDER PITCH					

US		6803108 B2	12-Oct-2004	11-Feb-2002	Granted
Title: CARBON FIBER BINDER PITCH					

US		6214158	10-Apr-2001	26-Feb-1999	Granted
Title: HIGH TEMPERATURE CARBONACEOUS CEMENT					

US		6378836	30-Apr-2002	12-Oct-1999	Granted
Title: LAY-UP MOLD					

US	-1	6808155	26-Oct-2004	22-Mar-2002	Granted
Title: LAY-UP MOLD					

US		6,627,062	30-Sep-2003	05-Oct-2001	Granted
Title: Graphite Cathode for the Electrolysis of Aluminium					

UCAR CARBON COMPANY INC.  
U.S. Granted Patent List

SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT

Country	Client	Patent Number	Grant Date	Filing Date	Status
US		4773980	27-Sep-1988	22-Oct-1987	GRANTED
Title: PROCESS AND APPARATUS FOR SEALING CATHODIC BARS IN A PRESTRESSED CONDITION (US)					

US		4787965	29-Nov-1988	06-Nov-1987	GRANTED
Title: PROTECTIVE COATING FOR THE CARRIER BARS OF PREBAKED ANODES AND THE EMERGING PART OF SAID ANODES (US)					

US	-1	CSV	4946502	07-Aug-1990	25-Oct-1989	GRANTED
Title: PROTECTIVE COATINGS FOR THE CARRIER BARS OF PRE-BAKED ANODES AND THE EMERGING PART OF THE ANODES (US)						

US			6280663	28-Aug-2001	25-Feb-2000	Granted
Title: A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR						

US	-1	GRER	6440563	27-Aug-2002	18-Apr-2001	Granted
Title: A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR						

US		GRER	6500022	31-Dec-2002	30-Mar-2001	Granted
Title: THREADED PIN FOR CARBON ELECTRODES						

US		GRER	6804582	12-Oct-2004	25-Sep-2000	Granted
Title: DIGITAL ELECTRODE OBSERVATION						

UCAR CARBON COMPANY INC.  
U.S. Granted Patent List

SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT

Patent Country	Grant Client	Filing Number	Date	Date	Status
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US		6549557	15-Apr-2003	18-May-2001	Granted
Title: AC ARC FURNACE WITH AUXILIARY ELECTROMAGNETIC COIL SYSTEM FOR CONTROL OF ARC DEFLECTION					

US		6724803	20-Apr-2004	04-Apr-2002	Granted
Title: Improved Induction Furnace for High Temperature Operation					

US		6,699,427	02-Mar-2004	26-Jul-2002	Granted
Title: MANUFACTURE OF CARBON/CARBON COMPOSITES BY HOT PRESSING					

US		6800364	05-Oct-2004	28-Jun-2002	Granted
Title: ISOTROPIC PITCH-BASED MATERIALS FOR THERMAL INSULATION					

TOTAL GRANTED = 48

**UCAR INTERNATIONAL TRADING INC.  
U.S. Granted Patent List**

None

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBON TECHNOLOGY LLC  
U.S. Granted Patent List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

None

**GRAPHITE ELECTRODE NETWORK LLC  
U.S. Granted Patent List**

None

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBIDE GRAFITO INC.  
U.S. Granted Patent List**

None

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**



**UCAR HOLDINGS V INC.  
U.S. Granted Patent List**

None

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBON COMPANY INC.**  
**U.S. Pending Application List**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

Country	Application Number	Filing	Status
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US	10/832098	26-Apr-2004	Pending
<b>Title: CARBON FIBER BINDER PITCH</b>			

US	10/914726	09-Aug-2004	Pending
<b>Title: DIGITAL ELECTRODE OBSERVATION</b>			

US	10/076946	14-Feb-2002	Pending
<b>Title: ELECTRODE INSPECTION SYSTEM</b>			

US	09/821990	30-Mar-2001	Pending
<b>Title: PITCH PLUG FOR CARBON ELECTRODE JOINT ASSEMBLY</b>			

US	09/967734	28-Sep-2001	Published
<b>Title: SUGAR ADDITIVE BLEND USEFUL AS A BINDER OR IMPREGNANT FOR CARBON PRODUCTS</b>			

US	10/185058	28-Jun-2002	Published
<b>Title: SUGAR ADDITIVE BLEND USEFUL AS A BINDER OR IMPREGNANT FOR CARBON PRODUCTS</b>			

US	10/013072	10-Dec-2001	Pending
<b>Title: BATCH PROCESS FOR MAKING HIGH FLASH POINT PITCH</b>			

**UCAR CARBON COMPANY INC.  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

<b>Country</b>	<b>Application Number</b>	<b>Filing Date</b>	<b>Status</b>
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<b>Title:</b>	US	10/792097	03-Mar-2004	Pending
	Improved Induction Furnace for High Temperature Operation			

<b>Title:</b>	US	10/272817	17-Oct-2002	Published
	Improved High Temperature Insulator			

<b>Title:</b>	US	10/760,946	20-Jan-2004	Pending
	MANUFACTURE OF CARBON/CARBON COMPOSITES BY HOT PRESSING			

<b>Title:</b>	US	10/865,294	10-Jun-2004	Pending
	ISOTROPIC PITCH-BASED MATERIALS FOR THERMAL INSULATION			

<b>Title:</b>	US	10/379077	04-Mar-2003	Published
	Process of Making Carbon Electrodes			

<b>Title:</b>	US	10/649359	27-Aug-2003	Published
	Process of Making Carbon Electrodes			

**UCAR CARBON COMPANY INC.  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**PATENT  
REEL: 015878 FRAME: 0496**

<b>Country</b>	<b>Client</b>	<b>Application Number</b>	<b>Filing Date</b>	<b>Status</b>
US		10/720841	24-Nov-2003	Published
<b>Title: Manufacture of Carbon/Carbon Composites by Hot Pressing</b>				
US		10/372349	24-Feb-2003	Published
<b>Title: Manufacture of Carbon Composites by Hot Pressing</b>				
US		10/720833	24-Nov-2003	Pending
<b>Title: Manufacture of Carbon Composites by Hot Pressing</b>				
US		10/999192	29-Nov-2004	Pending
<b>Title: Manufacture of Carbon Composites by Hot Pressing</b>				
US		10/760947	20-Jan-2004	Pending
<b>Title: End Face Seal for Graphite Electrodes</b>				
US		10/802,621	17-Mar-2004	Pending
<b>Title: Graphite Threads Resistant to Disassembly and Method of Making the Same</b>				
US		10/830618	23-Apr-2004	Pending
<b>Title: Male-Female Electrode Joint</b>				
US		10/975607	28-Oct-2004	Pending
<b>Title: Male-Female Electrode Joint</b>				

**UCAR CARBON COMPANY INC.  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

Country	Client	Application Number	Filing Date	Status
US		10/860,378	03-Jun-2004	Pending
<b>Title:</b> Electrode Joint Locking System				

US		10/860,382	03-Jun-2004	Pending
<b>Title:</b> Locking Ring for Graphite Electrodes				

US			29-Dec-2004	Pending
<b>Title:</b> Extended Length Graphite Electrode				

US		10/970352	21-Oct-2004	Pending
<b>Title:</b> High Strength Monolithic Carbon Foam				

US	GRER	10/999,374	30-Nov-2004	Pending
<b>Title:</b> Electric Arc Furnace Monitoring System and Method				

**TOTAL PENDING = 26**

**UCAR INTERNATIONAL TRADING INC.  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

None.

**UCAR CARBON TECHNOLOGY LLC  
U.S. Pending Application List**

None.

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**GRAPHITE ELECTRODE NETWORK LLC  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

None.



**UNION CARBIDE GRAFITO INC.  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

None.

**UCAR HOLDINGS V INC.  
U.S. Pending Application List**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

None.

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**PATENT  
REEL: 015878 FRAME: 0503**

**Monday, January 10, 2005**

**Country List - Argentina**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
017054		CAER	Country AR Granted	Argentina 326661	24-Nov-199	251086	16-Sep-1997		24-Nov-2013
<b>Title: SELF CENTERING ELECTRODE JOINT</b>									

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Australia**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
017054		CAER	Country AU GRANTED	AU 51932/93	24-Nov-199	663839	19-Oct-1995		24-Nov-2013
Title: SELF CENTERING ELECTRODE JOINT									

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List- Belgium**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
017345		GRER	Country BE Granted	96303960.7	31-May-199	0746178	13-Feb-2002		31-May-2016
			Title: PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES						
017413		GRER	Granted	96308309.2	08-Nov-199	0775679	07-Mar-2001		08-Nov-2016
			Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Brazil**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
015715		GRER	Granted	P18903713.8	26-Jul-1989	P18903713.8	29-Dec-1998	04-Aug-1998	26-Jul-2009
			<b>Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING</b>						
016259		GRER	Granted	P19004217-4	27-Aug-199	P19004217-4	03-Nov-1999		27-Aug-2010
			<b>Title: METHOD OF ON-LINE MONITORING OF AN ELECTRIC ARC FURNACE AND METHOD OF CONTROL</b>						
017054		CAER	Granted	P19304811-4	24-Nov-199	P19304811-4	25-Jul-2000	22-Feb-2000	24-Nov-2013
			<b>Title: SELF CENTERING ELECTRODE JOINT</b>						
017198		GRER	Granted	P19601166-1	28-Mar-199	P19601166-1	17-Aug-2004		28-Mar-2016
			<b>Title: CONTINUOUS METHOD FOR INCREASING THE Q.I. CONCENTRATION OF LIQUID TAR WHILE CONCURRENTLY PRODUCING A Q.I. FREE TAR</b>						
017345		GRER	Granted	P19602535-2	30-May-199	P19602535-2	03-Oct-2000		30-May-2016
			<b>Title: PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES</b>						
017413		GRER	Granted	P19605639-8	20-Nov-199	P19605639-8	27-May-2001		20-Nov-2016
			<b>Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES</b>						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Canada**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
014783	-1	GRER	Granted	538222	28-May-198	1297145	10-Mar-1992		28-May-2007
			<b>Title: ELECTRODE JOINT THREAD FORM</b>						
014852		GRER	GRANTED			1287862	20-Aug-1991		20-Aug-2008
			<b>Title: OXIDATION RETARDED GRAPHITE OR CARBON ELECTRODE AND METHOD FOR PRODUCING THE ELECTRODE</b>						
015656	-1	GRER	GRANTED2003653.2		22-Nov-198	2003653	09-Jul-1996		22-Nov-2009
			<b>Title: TOPICAL TREATMENT FOR SEALING CARBON AND GRAPHITE SURFACES</b>						
015715		GRER	GRANTED			1322184	14-Sep-1993		14-Sep-2010
			<b>Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING</b>						
015962		GRER	GRANTED2035983		08-Feb-199	2035983	17-Sep-1996		08-Feb-2011
			<b>Title: HIGH STRENGTH CARBONACEOUS CEMENT</b>						

**UCAR CARBON COMPANY INC.**  
**Non-U.S. Patent Registration**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**Country List-Canada**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
016560		GRER	Granted	2059062	09-Jan-1992	2059062	09-May-2000		09-Jan-2012
			<b>Title: IMPROVEMENT IN ARC FURNACE REGULATOR PERFORMANCE</b>						
017054		CAER	GRANTED	2109909	24-Nov-199	2109909	30-Jul-1996		24-Nov-2013
			<b>Title: SELF CENTERING ELECTRODE JOINT</b>						
017345		GRER	Granted	2177750	30-May-199	2177750	14-Sep-1999		30-May-2016
			<b>Title: PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES</b>						
017413		GRER	Granted	2190680	19-Nov-199	2190680	02-May-2001		19-Nov-2016
			<b>Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES</b>						



**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List – China (Peoples Republic)**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
017054		CAER	Country CN Granted	China (Peoples Republic) 93120594.8	24-Nov-199	93129584.8	24-Dec-1999		24-Nov-2013
Title: SELF CENTERING ELECTRODE JOINT									

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List – Czech Republic**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
015715		GRER	Country CZ Granted	Czech Republic PV4524/89	27-Jul-1989	283759	15-Apr-1998		27-Jul-2009
Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING									

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Germany**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
<b>Country DE Germany</b>									
015715		GRER		GRANTED89307474.0 Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING	22-Jul-1989	0410050	18-Nov-1993		22-Jul-2009
015962		GRER		GRANTED91301049.2 Title: HIGH STRENGTH CARBONACEOUS CEMENT	08-Feb-199	0498097	05-Jul-1995		08-Feb-2011
016468		GRER		GRANTED91203318.0 Title: APPARATUS FOR TREATMENT OF PETROLEUM COKES WITH A PUFFING INHIBITOR IN A ROTARY CALCINER	16-Dec-199	0491442	01-Jun-1994		16-Dec-2011
016513		CASP		GRANTED92102709.0 Title: CONDUCTIVE EXPANDABLE CARBONACEOUS PASTE MATERIAL	19-Feb-199	0500061	26-Oct-1994		19-Feb-2012

**UCAR CARBON COMPANY INC.**  
**Non-U.S. Patent Registration**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**Country List - Germany**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
016560		GRER	GRANTED 92200056.7 Title: IMPROVEMENT IN ARC FURNACE REGULATOR PERFORMANCE		09-Jan-1992	69201573.6	08-Mar-1995		09-Jan-2012
016901		CASP	GRANTED P4312571.9 Title: ROOM TEMPERATURE SETTING CARBONACEOUS CEMENT WITH INCREASED ELECTRICAL CONDUCTIVITY AND FLEXURAL STRENGTH		17-Apr-199	4312571.9	30-Dec-1997		17-Apr-2013
016901	-1	CASP	GRANTED P4345359.7 Title: ROOM TEMPERATURE SETTING CARBONACEOUS CEMENT WITH INCREASED ELECTRICAL CONDUCTIVITY AND FLEXURAL STRENGTH		22-Dec-199	4345359.7	23-Dec-1997		22-Dec-2015
017054		CAER	GRANTED 69314749.0-08 Title: SELF CENTERING ELECTRODE JOINT		19-Nov-199	599211	22-Oct-1997		19-Nov-2013
017198		GRER	Granted 95308207.0 Title: CONTINUOUS METHOD FOR INCREASING THE Q.I. CONCENTRATION OF LIQUID TAR WHILE CONCURRENTLY PRODUCING A Q.I. FREE TAR		16-Nov-199	69511045.4	06-Aug-1999		16-Nov-2015

**UCAR CARBON COMPANY INC.**  
**Non-U.S. Patent Registration**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**Country List - Germany**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
017345		GRER	Granted	96303960.7	31-May-199	0746178	13-Feb-2002	69619160 11-Jul-2002	31-May-2016
			<b>Title: PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES</b>						
017413		GRER	Granted	69611971.4-08	08-Nov-199	69611971	07-Mar-2001		08-Nov-2016
			<b>Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES</b>						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Egypt**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
017413		GRER	Granted	1029/96	20-Nov-199	20932	28-Jun-2000		20-Nov-2011
Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES									

**UCAR CARBON COMPANY INC.**  
**Non-U.S. Patent Registration**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**Country List – ES - Spain**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
013920	-2	GRER	GRANTED	549483	24-Sep-1986	24-Sep-2006			
			Title: CARBONACEOUS ARTICLES HAVING OXIDATION PROHIBITIVE COATINGS THEREON						
015715		GRER	GRANTED	89307474.0	22-Jul-1989	2050242	18-Nov-1993		22-Jul-2009
			Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING						
015962		GRER	GRANTED	91301049.2	08-Feb-199	2074222	05-Jul-1995		08-Feb-2011
			Title: HIGH STRENGTH CARBONACEOUS CEMENT						
016259		GRER	GRANTED	90116235.4	24-Aug-199	2091781 T3	25-Sep-1996		24-Aug-2010
			Title: METHOD OF ON-LINE MONITORING OF AN ELECTRIC ARC FURNACE AND METHOD OF CONTROL						
016468		GRER	GRANTED	91203318.0	16-Dec-199	0491442	01-Jun-1994		16-Dec-2011
			Title: APPARATUS FOR TREATMENT OF PETROLEUM COKES WITH A PUFFING INHIBITOR IN A ROTARY CALCINER						
017054		CAER	GRANTED	93118639.9	19-Nov-199	ES2108190T3	22-Oct-1997		19-Nov-2013
			Title: SELF CENTERING ELECTRODE JOINT						
017198		GRER	Granted	95308207.0	16-Nov-199	ES2133680T3	28-Jul-1999		16-Nov-2015
			Title: CONTINUOUS METHOD FOR INCREASING THE Q.I. CONCENTRATION OF LIQUID TAR WHILE CONCURRENTLY PRODUCING A Q.I. FREE TAR						
017345		GRER	Granted	96303960.7	31-May-199	0746178	13-Feb-2002		31-May-2016
			Title: PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - ES - Spain**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
017413		GRER	Granted	96308309.2	08-Nov-199	2156984	07-Mar-2001		08-Nov-2016
			Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES						
030024		GRER	Granted	200002546	23-Oct-200	2180394	31-May-2004		23-Oct-2020
			Title: CARBON FIBER BINDER PITCH						



UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration

SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT

Country List - France

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
014783		GRER	Country FR France	GRANTED86303707.3	15-May-198	0202128	12-Feb-1992		15-May-2006
				Title: ELECTRODE JOINT THREAD FORM					
015104	-1	GRSP		GRANTED89107849.5	29-Apr-198	0340697	15-Dec-1993		29-Apr-2009
				Title: PROCESS FOR PRODUCING HIGH DENSITY CARBON AND GRAPHITE ARTICLES					
015962		GRER		GRANTED91301049.2	08-Feb-199	0498097	05-Jul-1995		08-Feb-2011
				Title: HIGH STRENGTH CARBONACEOUS CEMENT					
016259		GRER		Granted 90116235.4	24-Aug-199	0415280	25-Sep-1996	0415280	24-Aug-2010
				Title: METHOD OF ON-LINE MONITORING OF AN ELECTRIC ARC FURNACE AND METHOD OF CONTROL				25-Sep-1996	
016513		CASP		GRANTED92102709.0	19-Feb-199	0500061	26-Oct-1994		19-Feb-2012
				Title: CONDUCTIVE EXPANDABLE CARBONACEOUS PASTE MATERIAL					

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - France**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
016560		GRER	GRANTED	92200056.7	09-Jan-1992	0494720	08-Mar-1995		09-Jan-2012
			Title: IMPROVEMENT IN ARC FURNACE REGULATOR PERFORMANCE						
017054		CAER	GRANTED	93118639.9	19-Nov-199	599211	22-Oct-1997		19-Nov-2013
			Title: SELF CENTERING ELECTRODE JOINT						
017198		GRER	Granted	95308207.0	16-Nov-199	0712921	28-Jul-1999		16-Nov-2015
			Title: CONTINUOUS METHOD FOR INCREASING THE Q.I. CONCENTRATION OF LIQUID TAR WHILE CONCURRENTLY PRODUCING A Q.I. FREE TAR						
017345		GRER	Granted	96303960.7	31-May-199	0746178	13-Feb-2002		31-May-2016
			Title: PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES						
017413		GRER	Granted	96308309.2	08-Nov-199	0775679	07-Mar-2001	0775679	08-Nov-2016
			Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES						

UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration

SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT

Country List - Great Britain

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
015104	-1	GRSP	GRANTED	89107849.5	29-Apr-198	0340697	15-Dec-1993		29-Apr-2009
			Title: PROCESS FOR PRODUCING HIGH DENSITY CARBON AND GRAPHITE ARTICLES						
015715		GRER	GRANTED	89307474.0	22-Jul-1989	0410050	18-Nov-1993		22-Jul-2009
			Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING						
015962		GRER	GRANTED	91301049.2	08-Feb-199	0498097	05-Jul-1995		08-Feb-2011
			Title: HIGH STRENGTH CARBONACEOUS CEMENT						
016513		CASP	GRANTED	92102709.0	19-Feb-199	0500061	26-Oct-1994		19-Feb-2012
			Title: CONDUCTIVE EXPANDABLE CARBONACEOUS PASTE MATERIAL						
017413		GRER	Granted	96308309.2	08-Nov-199	0775679	07-Mar-2001		08-Nov-2016
			Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Italy**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
014783		GRER		Country IT Italy GRANTED86303707.3 Title: ELECTRODE JOINT THREAD FORM	15-May-198	0202128	12-Feb-1992	15-May-2006	
015104	-1	GRSP		GRANTED89107849.5 Title: PROCESS FOR PRODUCING HIGH DENSITY CARBON AND GRAPHITE ARTICLES	29-Apr-198	0340697	15-Dec-1993	29-Apr-2009	
015656		GRER		GRANTED88305478.5 Title: TOPICAL TREATMENT FOR SEALING CARBON AND GRAPHITE SURFACES	15-Jun-1988	0296757	01-Dec-1993	15-Jun-2008	
015656	-1	GRER		GRANTED89312144.2 Title: TOPICAL TREATMENT FOR SEALING CARBON AND GRAPHITE SURFACES	22-Nov-198	0370799	17-Mar-1993	22-Nov-2009	
015962		GRER		GRANTED91301049.2 Title: HIGH STRENGTH CARBONACEOUS CEMENT	08-Feb-199	0498097	05-Jul-1995	08-Feb-2011	
016259		GRER		Granted 90116235.4 Title: METHOD OF ON-LINE MONITORING OF AN ELECTRIC ARC FURNACE AND METHOD OF CONTROL	24-Aug-199	0415280	25-Sep-1996	24-Aug-2010	
016513		CASP		GRANTED92102709.0 Title: CONDUCTIVE EXPANDABLE CARBONACEOUS PASTE MATERIAL	19-Feb-199	0500061	26-Oct-1994	19-Feb-2012	

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

016560	GRER	GRANTED 92200056.7	09-Jan-1992 0494720	08-Mar-1995	09-Jan-2012
		Title: IMPROVEMENT IN ARC FURNACE REGULATOR PERFORMANCE			
017054	CAER	GRANTED 93118639.9	19-Nov-199 27669/BE/97	01-Oct-1997	19-Nov-2013
		Title: SELF CENTERING ELECTRODE JOINT			

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Italy**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
017198		GRER	Granted	95308207.0	16-Nov-199	0712921	28-Jul-1999		16-Nov-2015
<b>Title:</b> CONTINUOUS METHOD FOR INCREASING THE Q.I. CONCENTRATION OF LIQUID TAR WHILE CONCURRENTLY PRODUCING A Q.I. FREE TAR									
017345		GRER	Granted	49082BE/2002	31-May-199	0746178	13-Feb-2002		31-May-2016
<b>Title:</b> PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES									
017413		GRER	Granted	96308309.2	08-Nov-199	0775679	07-Mar-2001		08-Nov-2016
<b>Title:</b> APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES									

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Japan**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
015104	-1	GRSP	Country JP Japan GRANTED 113514/89 Title: PROCESS FOR PRODUCING HIGH DENSITY CARBON AND GRAPHITE ARTICLES		02-May-198	2505880	02-Apr-1996	12-Jun-1996	02-May-2009
015715		GRER	Granted 191243/89 Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING		24-Jul-1989	1981115	25-Oct-1995	5890/1995 25-Jan-1995	24-Jul-2009
015962		GRER	Granted 104008/91 Title: HIGH STRENGTH CARBONACEOUS CEMENT		08-Feb-199	2760910	20-Mar-1998	04-Jun-1998	08-Feb-2011
016901		CASP	Granted 087247/93 Title: ROOM TEMPERATURE SETTING CARBONACEOUS CEMENT WITH INCREASED ELECTRICAL CONDUCTIVITY AND FLEXURAL STRENGTH		14-Apr-199	2908172	02-Apr-1999	2908172 21-Jun-1999	14-Apr-2013
017198		GRER	Granted 025672/96 Title: CONTINUOUS METHOD FOR INCREASING THE Q.I. CONCENTRATION OF LIQUID TAR WHILE CONCURRENTLY PRODUCING A Q.I. FREE TAR		13-Feb-199	2935822	04-Jun-1999	2935822 16-Aug-1999	13-Feb-2016

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List – South Korea**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
017413		GRER	Country Granted	KR Korea, South 55535/96	20-Nov-199	286958	18-Jan-2001		20-Nov-2016
Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES									



**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Mexico**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
014783		GRER	GRANTED	2506	15-May-198	168315	18-May-1993		15-May-2006
			<b>Title: ELECTRODE JOINT THREAD FORM</b>						
015715		GRER	GRANTED		24-Jul-1989	170984	22-Sep-1993		24-Jul-2009
			<b>Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING</b>						
016259		GRER	GRANTED	14825	27-Aug-199	173154	27-Sep-1995		27-Aug-2010
			<b>Title: METHOD OF ON-LINE MONITORING OF AN ELECTRIC ARC FURNACE AND METHOD OF CONTROL</b>						
016560		GRER	GRANTED	9200092	09-Jan-1992	180375	11-Dec-1995		09-Jan-2012
			<b>Title: IMPROVEMENT IN ARC FURNACE REGULATOR PERFORMANCE</b>						
017413		GRER	Granted	965697	19-Nov-199	196794	02-Jun-2000		19-Nov-2016
			<b>Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES</b>						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Norway**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
017054		CAER	Country NO Granted	Norway 93/4255	24-Nov-199	306440	24-Nov-1993		24-Nov-2013
Title: SELF CENTERING ELECTRODE JOINT									

**UCAR CARBON COMPANY INC.**  
**Non-U.S. Patent Registration**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**Country List - Poland**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
015715		GRER	GRANTED		24-Jul-1989	163084	08-Sep-1994		24-Jul-2009
			<b>Title:</b> TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING						
017054		CAER	GRANTED	P301186	24-Nov-199	172238	08-Jan-1997		24-Nov-2013
			<b>Title:</b> SELF CENTERING ELECTRODE JOINT						
017413		GRER	Granted	P317091	20-Nov-199	186570	08-Jul-2003		20-Nov-2016
			<b>Title:</b> APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Romania**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
015715		GRER	GRANTED		16-Aug-198	106118	29-Jan-1993		16-Aug-2009
<b>Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING</b>									

**UCAR CARBON COMPANY INC.**  
**Non-U.S. Patent Registration**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**Country List - Russia**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
015715		GRER	GRANTED	4614772	24-Jul-1989	2081152	10-Jun-1997		24-Jul-2009
			<b>Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING</b>						
017054		CAER	Granted	93052366.0	24-Nov-199	2129341	20-Apr-1999		24-Nov-2013
			<b>Title: SELF CENTERING ELECTRODE JOINT</b>						
017345		GRER	Granted	96110403	30-May-199	2142607	25-Jun-1999		30-May-2016
			<b>Title: PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES</b>						
017413		GRER	Granted	96122394	19-Nov-199	2129340	20-Apr-1999		19-Nov-2016
			<b>Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES</b>						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Sweden**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
016513		CASP	GRANTED	92102709.0	19-Feb-199	0500061	26-Oct-1994		19-Feb-2012
<b>Title:</b> CONDUCTIVE EXPANDABLE CARBONACEOUS PASTE MATERIAL									

**UCAR CARBON COMPANY INC.**  
**Non-U.S. Patent Registration**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**Country List - Taiwan**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
017413		GRER	Granted	86100105	07-Jan-1997	NI099155	01-Dec-1998	346538 01-Dec-1998	07-Jan-2017
			<b>Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES</b>						
P2003		GRER	Granted	90123447	24-Sep-200	NI181877	13-Nov-2003	538632 21-Jun-2003	23-Sep-2021
			<b>Title: DIGITAL ELECTRODE OBSERVATION</b>						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Ukraine**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
017054		CAER	Granted	93003756	25-Nov-199	27762	16-Oct-2000		25-Nov-2013
Title: SELF CENTERING ELECTRODE JOINT									



**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Registration**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Venezuela**

<b>Case Number</b>	<b>Sub</b>	<b>Attorney</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>	<b>Expiration Date</b>
017054		FJM	CAER	Granted	1798/93	24-Nov-199	56568	08-May-1998		24-Nov-2013
Title: SELF CENTERING ELECTRODE JOINT										

**UCAR CARBON COMPANY INC.**  
**Non-U.S. Patent Registration**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**Country List —South Africa**

Case Number	Sub	Division	Status	Application	Filing	Patent	Issue	Publication Number/Date	Expiration Date
015715		GRER	GRANTED 89/5627 Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING	24-Jul-1989	89/5627		31-Oct-1990		24-Jul-2009
017054		CAER	Granted 93/8797 Title: SELF CENTERING ELECTRODE JOINT	24-Nov-1999	93/8797		30-Jun-1994		24-Nov-2013
017198		GRER	GRANTED 96/2599 Title: CONTINUOUS METHOD FOR INCREASING THE Q.I. CONCENTRATION OF LIQUID TAR WHILE CONCURRENTLY PRODUCING A Q.I. FREE TAR	01-Apr-1999	96/2599		31-Dec-1996		01-Apr-2016
017413		GRER	Granted 96/732 Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES	20-Nov-1999	96/732		27-Aug-1997		20-Nov-2016
030006		GRER	Granted 97/8432 Title: PRODUCTION OF SOLIDS-FREE COAL TAR PITCH	18-Sep-1999	97/8432		24-Jun-1998		18-Sep-2017
P2001		GRER	Granted 2002/6508 Title: A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR	20-Feb-2002	2002/6508		28-Jan-2004		20-Feb-2021
P2003		GRER	Granted 2002/4128 Title: DIGITAL ELECTRODE OBSERVATION	23-May-2002	2002/4128		29-Oct-2003		23-May-2022

**TOTAL REGISTERED = 102**

**UCAR INTERNATIONAL TRADING INC.  
Non-U.S. Patent Registration**

None.

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBON TECHNOLOGY LLC**  
**Non-U.S. Patent Registration**

None.

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**GRAPHITE ELECTRODE NETWORK LLC**  
**Non-U.S. Patent Registration**

None.

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**UNION CARBIDE GRAFITO INC.  
Non-U.S. Patent Registration**

None.

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR HOLDINGS V INC.  
Non-U.S. Patent Registration**

**None.**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Australia**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Publication Number/Date</b>
P2001		GRER	Published	2001241596	20-Feb-2001	
			<b>Title: A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR</b>			
						28-Jan-2004



**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List – Bolivia**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Publication Number/Date</b>
017054		CAER	PENDING	19930315	25-Nov-1993	
			Title: SELF-CENTERING ELECTRODE JOINT			

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Brazil**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Publication Number/Date</b>
030006		GRER	Pending	PI9711561-4	25-May-1999	
			<b>Title:</b> PRODUCTION OF SOLIDS-FREE COAL TAR PITCH			
P2001		GRER	Pending	PI0108546-8	20-Feb-2001	
			<b>Title:</b> A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR			
P2002		GRER	Pending	PI0208511-9	29-March-2002	
			<b>Title:</b> THREADED PIN FOR CARBON ELECTRODES			
P2003		GRER	Pending	PI0107268-4	21-Sep-2001	
			<b>Title:</b> DIGITAL ELECTRODE OBSERVATION			
P2005		GRER	Pending	PI0207265-3	15-Feb-2002	
			<b>Title:</b> ELECTRODE INSPECTION SYSTEM			
P2015		GRSP	Pending	PI0308931-2	03-Apr-2003	
			<b>Title:</b> Improved Induction Furnace for High Temperature Operation			

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List- Canada**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>
030025		GRER	Pending	2343553	05-Apr-2001		
			<b>Title: HIGH TEMPERATURE CARBONACEOUS CEMENT</b>				
P2001		GRER	Pending	2401625	20-Feb-2001		
			<b>Title: A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR</b>				
P2002		GRER	Pending	2442752	29-Mar-2002		
			<b>Title: THREADED PIN FOR CARBON ELECTRODES</b>				
P2003		GRER	Pending	2392788	21-Sep-2001		
			<b>Title: DIGITAL ELECTRODE OBSERVATION</b>				
P2015		GRSP	Pending		03-Apr-2003		
			<b>Title: Improved Induction Furnace for High Temperature Operation</b>				
P2020		CASP	Pending		27-Jun-2003		
			<b>Title: ISOTROPIC PITCH-BASED MATERIALS FOR THERMAL INSULATION</b>				

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List – China (Peoples Republic)**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Publication Number/Date</b>
P2003		GRER	Published	01804116.7 Title: DIGITAL ELECTRODE OBSERVATION	21-Sep-2001
P2009		GRSP	Pending	03-Dec-2002 Title: HIGH FLASH POINT PITCH BASED IMPREGNANT FOR CARBON AND GRAPHITE AND METHOD	
P2011		GRSP	Pending	03-Dec-2002 Title: BATCH PROCESS FOR MAKING HIGH FLASH POINT PITCH	
P2015		GRSP	Pending	03-Apr-2003 Title: Improved Induction Furnace for High Temperature Operation	

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Czech Republic**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>
<b>Country CZ Czech Republic</b>					
030024		GRER	Pending	PV2000-4062	01-Nov-2000
		<b>Title: CARBON FIBER BINDER PITCH</b>			
P2009		GRSP	Pending	PV 2004-797	03-Dec-2002
		<b>Title: HIGH FLASH POINT PITCH BASED IMPREGNANT FOR CARBON AND GRAPHITE AND METHOD</b>			
P2011		GRSP	Pending	PV 2004-796	03-Dec-2002
		<b>Title: BATCH PROCESS FOR MAKING HIGH FLASH POINT PITCH</b>			

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Germany**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>
030024		GRER	Published	10053916.5	31-Oct-2000		
			Title: CARBON FIBER BINDER PTCH				

**UCAR CARBON COMPANY INC.**  
**Non-U.S. Patent Applications**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**Country List - Dominican Republic**

<b>Case</b>	<b>Sub</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication</b>	<b>Expiration</b>
017054		CAER	PENDING	325159	08-Sep-1993		
			<b>Title: SELF CENTERING ELECTRODE JOINT</b>				

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List-Europe**

<b>Case Number</b>	<b>Sub</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Publication</b>
030025		Published	01108865.5	09-Apr-2001	1249434
		<b>Title:</b>	HIGH TEMPERATURE CARBONACEOUS CEMENT		
			16-Oct-2002		
P2001		GRER	Published	01912856.0	20-Feb-2001
		<b>Title:</b>	A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR		
					1261549 04-Dec-2002
P2002		GRER	Pending	02725455.6	29-Mar-2002
		<b>Title:</b>	THREADED PIN FOR CARBON ELECTRODES		
P2003	JRC	GRER	Published	1973371.6	21-Sep-2001
		<b>Title:</b>	DIGITAL ELECTRODE OBSERVATION		
				16-Jul-2003	
P2005		GRER	Pending	02706294.2	15-Feb-2002
		<b>Title:</b>	ELECTRODE INSPECTION SYSTEM		
P2009		GRSP	Pending	02784688.0	03-Dec-2002
		<b>Title:</b>	HIGH FLASH POINT PITCH BASED IMPREGNANT FOR CARBON AND GRAPHITE AND METHOD		
P2010		GRSP	Pending	02800359.8	26-Sep-2002
		<b>Title:</b>	SUGAR ADDITIVE BLEND USEFUL AS A BINDER OR IMPREGNANT FOR CARBON PRODUCTS		
P2011		GRSP	Pending	02789947.5	03-Dec-2002
		<b>Title:</b>	BATCH PROCESS FOR MAKING HIGH FLASH POINT PITCH		
P2015		GRSP	Pending	03718211.0	03-Apr-2003
		<b>Title:</b>	Improved Induction Furnace for High Temperature Operation		
P2020		CASP	Pending		27-Jun-2003
		<b>Title:</b>	ISOTROPIC PITCH-BASED MATERIALS FOR THERMAL INSULATION		



**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Hong Kong**

<b>Case Number</b>	<b>Sub</b>	<b>Attorney</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>
030006		FJM	GRER	Country Pending	HK Hong Kong 00102055.8	05-Apr-2000
Title: PRODUCTION OF SOLIDS-FREE COAL TAR PITCH						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Indonesia**

<b>Case Number</b>	<b>Sub</b>	<b>Attorney</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>
015715		FJM	GRER	PENDING	P-003978	29-Jul-1992
Title: TREATMENT OF PETROLEUM COKES TO INHIBIT COKE PUFFING						

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - India**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>
017413		GRER	Pending	2540/DEL/1996	19-Nov-1996
			<b>Title:</b> APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES		
P2015		GRSP	Pending		03-Apr-2003
			<b>Title:</b> Improved Induction Furnace for High Temperature Operation		

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Japan**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>
030006		GRER	Pending	515739/98	24-Sep-1997
<b>Title: PRODUCTION OF SOLIDS-FREE COAL TAR PITCH</b>					
030024		GRER	Pending	2000-329007	27-Oct-2000
<b>Title: CARBON FIBER BINDER PITCH</b>					
030025		GRER	Pending	2001-110053	09-Apr-2001
<b>Title: HIGH TEMPERATURE CARBONACEOUS CEMENT</b>					
P2005		GRER	Pending		15-Feb-2002
<b>Title: ELECTRODE INSPECTION SYSTEM</b>					
P2015		GRSP	Pending		03-Apr-2003
<b>Title: Improved Induction Furnace for High Temperature Operation</b>					

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List -- South Korea**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Publication Number/Date</b>
P2001		GRER	Published	2002-7011123	20-Feb-2001	2002-92371 11-Dec-2002
			<b>Title: A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR</b>			
P2005		GRER	Pending	2003-7010798	16-Aug-2002	
			<b>Title: ELECTRODE INSPECTION SYSTEM</b>			

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Mexico**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Publication Number/Date</b>
017345		GRER	Published	962055 30-May-199 <b>Title:</b> PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES	1996/00205 01-Mar-2003
P2001		GRER	Published	2002/008271 20-Feb-2001 <b>Title:</b> A PIN CONNECTING CARBON ELECTRODES AND PROCESS THEREFOR	01-Jan-2004
P2002		GRER	Pending	2003/008919 29-March-2002 <b>Title:</b> THREADED PIN FOR CARBON ELECTRODES	
P2003		GRER	Published	2002/005280 21-Sep-2001 <b>Title:</b> DIGITAL ELECTRODE OBSERVATION	005280 20-Oct-2003
P2005		GRER	Pending	a/2003/007308 15-Aug-2002 <b>Title:</b> ELECTRODE INSPECTION SYSTEM	
P2015		GRSP	Pending	2004/009660 01-Oct-2003 <b>Title:</b> Improved Induction Furnace for High Temperature Operation	
P2020		CASP	Pending	27-Jun-2003 <b>Title:</b> ISOTROPIC PITCH-BASED MATERIALS FOR THERMAL INSULATION	

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Malaysia**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Publication Number/Date</b>
017345		GRER	Country MY Malaysia PENDING P196002065	29-May-1996 Title: PRE-HEATING FURNACE FOR BAKED AMORPHOUS CARBON BODIES	
017413		GRER	Pending P196004796	19-Nov-1996 Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES	

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Russia**

<b>Case Number</b>	<b>Sub</b>	<b>Attorney</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Publication Number/Date</b>
P2015	JRC FS	GRSP	Pending	03-Apr-2003	Title: Improved Induction Furnace for High Temperature Operation		



**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Saudi Arabia**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Publication Number/Date</b>
017413		GRER	Pending	08-Nov-1996 Title: APPARATUS FOR LENGTHWISE GRAPHITIZATION (LWG) OF CARBON ELECTRODE BODIES		

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List - Taiwan**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Patent</b>	<b>Issue</b>	<b>Publication Number/Date</b>
P2010		GRSP	Pending	91121842	24-Sep-2002			
				<b>Title:</b> SUGAR ADDITIVE BLEND USEFUL AS A BINDER OR IMPREGNANT FOR CARBON PRODUCTS				
P2025		GRSP	Pending	92133672	01-Dec-2003			
				<b>Title:</b> Manufacture of Carbon Composites by Hot Pressing				
P2028		GRER	Pending		21-Dec-2004			
				<b>Title:</b> End Face Seal for Graphite Electrodes				

**UCAR CARBON COMPANY INC.**  
**Non-U.S. Patent Applications**

**SCHEDULE I**  
**TO INTELLECTUAL PROPERTY**  
**SECURITY AGREEMENT**

**Country List – PCT (Patent Cooperation Treaty)**

<b>Case Number</b>	<b>Sub</b>	<b>Attorney</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Publication Number/Date</b>
<b>Country WO Patent Cooperation Treaty</b>							
P2015		GRSP	Published	US03/10416	03-Apr-2003		03/087689
			<b>Title:</b> Improved Induction Furnace for High Temperature Operation				23-Oct-2003
P2017		GRSP	Pending	US03/32754	15-Oct-2003		
			<b>Title:</b> Improved High Temperature Insulator				
P2022	-1	GRER	Pending	US03/07618	12-Mar-2003		
			<b>Title:</b> Process of Making Carbon Electrodes				
P2022	-2	GRER	Pending	US03/27155	27-Aug-2003		
			<b>Title:</b> Process of Making Carbon Electrodes				
P2025	-2	GRSP	Pending	US03/37856	25-Nov-2003		
			<b>Title:</b> Manufacture of Carbon Composites by Hot Pressing				
P2028		GRER	Pending		22-Dec-2004		
			<b>Title:</b> End Face Seal for Graphite Electrodes				

**UCAR CARBON COMPANY INC.  
Non-U.S. Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Country List – South Africa**

<b>Case Number</b>	<b>Sub</b>	<b>Division</b>	<b>Status</b>	<b>Application</b>	<b>Filing</b>	<b>Publication Number/Date</b>
P2002		GRER	Pending <b>Title:</b>	2003/7529 THREADED PIN FOR CARBON ELECTRODES	29-March-2002	
P2005		GRER	Pending <b>Title:</b>	2003/6334 ELECTRODE INSPECTION SYSTEM	15-Feb-2005	
P2009		GRSP	Pending <b>Title:</b>	03-Dece-2002 HIGH FLASH POINT PITCH BASED IMPREGNANT FOR CARBON AND GRAPHITE AND METHOD		
P2011		GRSP	Pending <b>Title:</b>	03-Dec-2002 BATCH PROCESS FOR MAKING HIGH FLASH POINT PITCH		
P2015		GRSP	Pending <b>Title:</b>	03-Apr-2003 Improved Induction Furnace for High Temperature Operation		
<b>Total Pending = 69</b>						

**UCAR INTERNATIONAL TRADING INC.  
Non-US Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

None.

**UCAR CARBON TECHNOLOGY LLC  
Non-US Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

None.

**GRAPHITE ELECTRODE NETWORK LLC  
Non-US Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

None.

**UNION CARBIDE GRAFITO INC.  
Non-US Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

None.



None.

**UCAR HOLDINGS V INC.  
Non-US Patent Applications**

**SCHEDULE I  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**PATENT  
REEL: 015878 FRAME: 0565**

UCAR CARBON COMPANY INC.  
U.S. Trademark Registration Report

SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT

Country:	US United States of America						
Trademark	Status	Case	Application No.	Filing Date	Registration No.	Registration Date	
DURABURN Owner UCAR Carbon Company Inc.	Registered	1202 Classes: 1, 17, 19			2480389	21-Aug-2001	
DURACAST Owner UCAR Carbon Company Inc.	Registered	1017 Classes: 19			2003368	24-Sep-1996	
DURAPRESS Owner UCAR Carbon Company Inc.	Registered	1200 Classes: 1			2513016	27-Nov-2001	
DURATECH Owner UCAR Carbon Company Inc.	Registered	1218 Classes: 17			2,608,033	13-Aug-2002	
GRAPHI-TOOL Owner UCAR Carbon Company Inc.	Registered	1087 Classes: 7			1702837	28-Jul-1992	
SMART RAM Owner UCAR Carbon Company Inc.	Registered	1094 Classes: 19			1727628	27-Oct-1992	
SOCKET MARKING FOR ELECTRODES DESIGN Owner UCAR Carbon Company Inc.	Registered	1095 Classes: 19			418218	11-Dec-1985	

**UCAR INTERNATIONAL TRADING INC.  
U.S. Trademark Registration Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBON TECHNOLOGY LLC.  
U.S. Trademark Registration Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR ELECTRODE NETWORK INC.  
U.S. Trademark Registration Report**

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

None.

**UCAR CARBIDE GRAFITO INC.  
U.S. Trademark Registration Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR HOLDINGS V INC.  
U.S. Trademark Registration Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBON COMPANY INC.  
U.S. Trademark Application Report**

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

<b>Country:</b>	<b>US</b>	<b>United States of America</b>			
<b>Trademark</b>		<b>Status</b>	<b>Case</b>	<b>Application No.</b>	<b>Filing Date</b>
<b>Connex</b>		<b>Pending</b>	<b>1291</b>	<b>78/347599</b>	<b>05-Jan-2004</b>
<b>Owner</b>	<b>UCAR Carbon Company Inc.</b>		<b>Classes: 09; 042</b>		



**UCAR INTERNATIONAL TRADING INC.  
U.S. Trademark Application Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBON TECHNOLOGY LLC  
U.S. Trademark Application Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**GRAPHITE ELECTRODE NETWORK LLC  
U.S. Trademark Application Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBIDE GRAFTO INC.  
U.S. Trademark Application Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR HOLDINGS V INC.  
U.S. Trademark Application Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBON COMPANY INC.  
Non-U.S. Trademark Registration Report**

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**PATENT  
REEL: 015878 FRAME: 0578**

<b>Country:</b>	<b>DK</b>	<b>Denmark</b>							
<b>Trademark</b>		<b>Status</b>	<b>Case Number</b>	<b>Application No.</b>	<b>Filing Date</b>	<b>Registration No.</b>	<b>Registration Date</b>		
DURACAST		Registered	1005			2532/95	21-Apr-1995		
Owner UCAR Carbon Company Inc.									
Classes: 19									
<b>Country:</b>	<b>FI</b>	<b>Finland</b>							
DURACAST		Registered	1006			143965	20-May-1996		
Owner UCAR Carbon Company Inc.									
Classes: 1									
<b>Country:</b>	<b>FR</b>	<b>France</b>							
DURACAST		Registered				95/559,893	23-Feb-1995		
Owner UCAR Carbon Company Inc.									
Classes: 19									
<b>Country:</b>	<b>DE</b>	<b>Germany</b>							
DURACAST		Registered	1008			39503605	28-Sep-1995		
Owner UCAR Carbon Company Inc.									
Classes: 19									
EKL and DESIGN		Registered	1021			608307	31-Aug-1955		
Owner UCAR Carbon Company Inc.									
Classes: 1 9 11 17									
EKL ELEKTROKOHLE LICHTENBERG AND DESIGN		Registered	1022			608,254	25-Aug-1955		
Owner UCAR Carbon Company Inc.									
Classes: 1 9 11 17									

**UCAR CARBON COMPANY INC.  
Non-U.S. Trademark Registration Report**

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**PATENT  
REEL: 015878 FRAME: 0579**

<b>Country:</b>	<b>W</b>	<b>International Registration</b>					
<b>Trademark</b>		<b>Status</b>	<b>Case</b>	<b>Application No.</b>	<b>Filing Date</b>	<b>Registration No.</b>	<b>Registration Date</b>
<b>EKL and DESIGN</b>		<b>Registered</b>	<b>1039</b>			<b>2R194692</b>	<b>13-Aug-1996</b>
<b>Owner UCAR Carbon Company Inc.</b>							
<b>Country:</b>	<b>IE</b>	<b>Ireland</b>					
<b>DURACAST</b>		<b>Registered</b>	<b>1009</b>			<b>173285</b>	<b>17-Feb-1995</b>
<b>Owner UCAR Carbon Company Inc.</b>							
<b>GRAPHI-TOOL</b>		<b>Registered</b>	<b>1084</b>			<b>154737</b>	<b>18-Nov-1992</b>
<b>Owner UCAR Carbon Company Inc.</b>							
<b>Country:</b>	<b>IL</b>	<b>Israel</b>					
<b>DURACAST</b>		<b>Registered</b>	<b>1010</b>			<b>96718</b>	<b>08-Oct-1996</b>
<b>Owner UCAR Carbon Company Inc.</b>							
<b>Country:</b>	<b>IT</b>	<b>Italy</b>					
<b>DURACAST</b>		<b>Registered</b>	<b>1011</b>			<b>712925</b>	<b>13-Jun-1997</b>
<b>Owner UCAR Carbon Company Inc.</b>							
<b>Country:</b>	<b>NO</b>	<b>Norway</b>					

**UCAR CARBON COMPANY INC.  
Non-U.S. Trademark Registration Report**

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

DURACAST                      Registered      1012  
Owner UCAR Carbon Company Inc.                      Classes: 19

173947                      06-Jun-1996



UCAR CARBON COMPANY INC.  
Non-U.S. Trademark Registration Report

SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT

Country List

Country:	PT	Portugal							
Trademark		Status	Case	Application No.	Filing Date	Registration No.	Registration Date		
DURACAST		Registered	1013			306816	03-Jan-1996		
Owner	UCAR Carbon Company Inc.		Classes: 19						
Country:	ES	Spain							
DURACAST		Registered	1014			1948738	02-Feb-1995		
Owner	UCAR Carbon Company Inc.		Classes: 1						
Country:	SE	Sweden							
DURACAST		Registered	1015			307141	2-Dec-1995		
Owner	UCAR Carbon Company Inc.		Classes: 1						
Country:	TW	Taiwan							
GRAPHI-TOOL		Registered	1085			614604	10-Oct-1993		
Owner	UCAR Carbon Company Inc.		Classes: 84						
Country:	GB	United Kingdom							
DURACAST		Registered	1016			2009155	27-Jan-1995		
Owner	UCAR Carbon Company Inc.		Classes: 1						
GRAPHI-TOOL		Registered	1086			1518774	13-Nov-1992		
Owner	UCAR Carbon Company Inc.		Classes: 7						

**UCAR INTERNATIONAL TRADING INC.  
Non-U.S. Trademark Registration Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR CARBON TECHNOLOGY LLC  
Non-U.S. Trademark Registration Report**

**None.**

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**GRAPHITE ELECTRODE NETWORK LLC  
Non-U.S. Trademark Registration Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UNION CARBIDE GRAFITO INC.  
Non-U.S. Trademark Registration Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**UCAR HOLDINGS V INC.  
Non-U.S. Trademark Registration Report**

None.

**SCHEDULE II  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**SCHEDULE III  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**COPYRIGHTS**

<b>PARTY</b>	<b>CONTRACT DATE</b>	<b>AGREEMENT DESCRIPTION</b>	<b>TERMINATION DATE</b>
Copy Clearance Center	30-Jun-04	Copyright License	29-Jun-05

**SCHEDULE IV  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**LICENSES**

<b>PARTY</b>	<b>CONTRACT DATE</b>	<b>COUNTRY</b>	<b>RELATED DESCRIPTION</b>	<b>AGREEMENT DESCRIPTION</b>	<b>TERMINATION DATE</b>
CHROMALLOY AMERICAN COMPANY	20-Feb-85	USA	TECHNOLOGY	TECHNOLOGY/PATENT LICENSE BY UCC	3-Jan-06
Conoco Fiber			TECHNOLOGY	TECHNOLOGY/PATENT LICENSE BY UCC	
LEMELSON FOUNDATION	30-Dec-99	USA	GRAPHITE ELECTRODES / CARBON ELECTRODES/ GRAFOIL	TECHNOLOGY/PATENT LICENSE TO UCAR	
PHILLIPS PETROLEUM COMPANY	1-Oct-83	USA	GRAPHITE SPECIALTIES	TECHNOLOGY/PATENT LICENSE TO UCC	
COAST COMPOSITES INC.	27-Jun-03	USA	CEMENT AND SEALANT	TRADE SECRET NON- DISCLOSURE AGREEMENT	
COAST COMPOSITES INC.	27-Jun-03	USA	LAY-UP MOLD	TECHNOLOGY/PATENT LICENSE BY UCC	
COAST COMPOSITES INC.	27-Jun-03	USA	SOFTWARE, CUSTOMER LISTS, CEMENT AND SEALANT	TRADE SECRET ASSIGNMENT BY UCC	
COAST COMPOSITES INC.	27-Jun-03	USA	CEMENT AND SEALANT	TRADEMARK AND DOMAIN ASSIGNMENT BY UCC	
UNION CARBIDE CORPORATION	1-Mar-96	USA	CARBON AND GRAPHITE PRODUCTS	TRADE NAME AND TRADEMARK LICENSE TO UCAR CARBON TECHNOLOGY LLC	26-Jan-15



**SCHEDULE V  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**PERMITTED LIENS**

None.

**SCHEDULE VI  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Offices where Financing Statements Need to be Filed**

Cuyahoga County Recorder  
County Administration Building  
219 Ontario Avenue  
Cleveland, Ohio 44113

Department of State of New York  
41 State Street  
Albany, NY 12207

Department of State of Delaware  
John G. Townsend Building  
401 Federal Street  
Suite 4  
Dover, Delaware 19901

Secretary of State of Ohio  
State Office Tower  
14<sup>th</sup> Floor  
30 E. Broad Street  
Columbus, OH 43266

**SCHEDULE VII  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Subsidiary Grantors**

UCAR Carbon Company Inc.  
Brandywine West Building  
1521 Concord Pike, Suite 301  
Wilmington, Delaware 19803

UCAR International Trading Inc.  
Brandywine West Building  
1521 Concord Pike, Suite 301  
Wilmington, Delaware 19803

UCAR Carbon Technology LLC  
Brandywine West Building  
1521 Concord Pike, Suite 301  
Wilmington, Delaware 19803

Graphite Electrode Network LLC  
Brandywine West Building  
1521 Concord Pike, Suite 301  
Wilmington, Delaware 19803

Union Carbide Grafite Inc.  
Brandywine West Building  
1521 Concord Pike, Suite 301  
Wilmington, Delaware 19803

**SCHEDULE VII  
TO INTELLECTUAL PROPERTY  
SECURITY AGREEMENT**

**Subsidiary Grantors**

UCAR Holdings V Inc.  
Brandywine West Building  
1521 Concord Pike, Suite 301  
Wilmington, Delaware 19803

**PATENT**

**REEL: 015878 FRAME: 0592**

**RECORDED: 04/04/2005**