

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6264469

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	ALCOA INC.	10/25/2016
RECEIVING PARTY DATA		
Name:	ALCOA USA CORP.	
Street Address:	201 ISABELLA STREET	
City:	PITTSBURGH	
State/Country:	PENNSYLVANIA	
Postal Code:	15212-5858	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	17000779
CORRESPONDENCE DATA		
Fax Number:	(720)904-7660	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>		
Phone:	3035726500	
Email:	morrism@gtlaw.com	
Correspondent Name:	HEATH J. BRIGGS, GREENBERG TRAUIG, LLP	
Address Line 1:	1144 15TH STREET, SUITE 3300	
Address Line 4:	DENVER, COLORADO 80202	
ATTORNEY DOCKET NUMBER:	169593-105676CON	
NAME OF SUBMITTER:	MARILYN MORRIS	
SIGNATURE:	/MARILYN MORRIS/	
DATE SIGNED:	08/24/2020	
Total Attachments: 106		
source=Alcoa-Alcoa-USA-Assignment#page1.tif		
source=Alcoa-Alcoa-USA-Assignment#page2.tif		
source=Alcoa-Alcoa-USA-Assignment#page3.tif		
source=Alcoa-Alcoa-USA-Assignment#page4.tif		
source=Alcoa-Alcoa-USA-Assignment#page5.tif		
source=Alcoa-Alcoa-USA-Assignment#page6.tif		

source=Alcoa-Alcoa-USA-Assignment#page7.tif
source=Alcoa-Alcoa-USA-Assignment#page8.tif
source=Alcoa-Alcoa-USA-Assignment#page9.tif
source=Alcoa-Alcoa-USA-Assignment#page10.tif
source=Alcoa-Alcoa-USA-Assignment#page11.tif
source=Alcoa-Alcoa-USA-Assignment#page12.tif
source=Alcoa-Alcoa-USA-Assignment#page13.tif
source=Alcoa-Alcoa-USA-Assignment#page14.tif
source=Alcoa-Alcoa-USA-Assignment#page15.tif
source=Alcoa-Alcoa-USA-Assignment#page16.tif
source=Alcoa-Alcoa-USA-Assignment#page17.tif
source=Alcoa-Alcoa-USA-Assignment#page18.tif
source=Alcoa-Alcoa-USA-Assignment#page19.tif
source=Alcoa-Alcoa-USA-Assignment#page20.tif
source=Alcoa-Alcoa-USA-Assignment#page21.tif
source=Alcoa-Alcoa-USA-Assignment#page22.tif
source=Alcoa-Alcoa-USA-Assignment#page23.tif
source=Alcoa-Alcoa-USA-Assignment#page24.tif
source=Alcoa-Alcoa-USA-Assignment#page25.tif
source=Alcoa-Alcoa-USA-Assignment#page26.tif
source=Alcoa-Alcoa-USA-Assignment#page27.tif
source=Alcoa-Alcoa-USA-Assignment#page28.tif
source=Alcoa-Alcoa-USA-Assignment#page29.tif
source=Alcoa-Alcoa-USA-Assignment#page30.tif
source=Alcoa-Alcoa-USA-Assignment#page31.tif
source=Alcoa-Alcoa-USA-Assignment#page32.tif
source=Alcoa-Alcoa-USA-Assignment#page33.tif
source=Alcoa-Alcoa-USA-Assignment#page34.tif
source=Alcoa-Alcoa-USA-Assignment#page35.tif
source=Alcoa-Alcoa-USA-Assignment#page36.tif
source=Alcoa-Alcoa-USA-Assignment#page37.tif
source=Alcoa-Alcoa-USA-Assignment#page38.tif
source=Alcoa-Alcoa-USA-Assignment#page39.tif
source=Alcoa-Alcoa-USA-Assignment#page40.tif
source=Alcoa-Alcoa-USA-Assignment#page41.tif
source=Alcoa-Alcoa-USA-Assignment#page42.tif
source=Alcoa-Alcoa-USA-Assignment#page43.tif
source=Alcoa-Alcoa-USA-Assignment#page44.tif
source=Alcoa-Alcoa-USA-Assignment#page45.tif
source=Alcoa-Alcoa-USA-Assignment#page46.tif
source=Alcoa-Alcoa-USA-Assignment#page47.tif
source=Alcoa-Alcoa-USA-Assignment#page48.tif
source=Alcoa-Alcoa-USA-Assignment#page49.tif
source=Alcoa-Alcoa-USA-Assignment#page50.tif
source=Alcoa-Alcoa-USA-Assignment#page51.tif
source=Alcoa-Alcoa-USA-Assignment#page52.tif
source=Alcoa-Alcoa-USA-Assignment#page53.tif
source=Alcoa-Alcoa-USA-Assignment#page54.tif

source=Alcoa-Alcoa-USA-Assignment#page55.tif
source=Alcoa-Alcoa-USA-Assignment#page56.tif
source=Alcoa-Alcoa-USA-Assignment#page57.tif
source=Alcoa-Alcoa-USA-Assignment#page58.tif
source=Alcoa-Alcoa-USA-Assignment#page59.tif
source=Alcoa-Alcoa-USA-Assignment#page60.tif
source=Alcoa-Alcoa-USA-Assignment#page61.tif
source=Alcoa-Alcoa-USA-Assignment#page62.tif
source=Alcoa-Alcoa-USA-Assignment#page63.tif
source=Alcoa-Alcoa-USA-Assignment#page64.tif
source=Alcoa-Alcoa-USA-Assignment#page65.tif
source=Alcoa-Alcoa-USA-Assignment#page66.tif
source=Alcoa-Alcoa-USA-Assignment#page67.tif
source=Alcoa-Alcoa-USA-Assignment#page68.tif
source=Alcoa-Alcoa-USA-Assignment#page69.tif
source=Alcoa-Alcoa-USA-Assignment#page70.tif
source=Alcoa-Alcoa-USA-Assignment#page71.tif
source=Alcoa-Alcoa-USA-Assignment#page72.tif
source=Alcoa-Alcoa-USA-Assignment#page73.tif
source=Alcoa-Alcoa-USA-Assignment#page74.tif
source=Alcoa-Alcoa-USA-Assignment#page75.tif
source=Alcoa-Alcoa-USA-Assignment#page76.tif
source=Alcoa-Alcoa-USA-Assignment#page77.tif
source=Alcoa-Alcoa-USA-Assignment#page78.tif
source=Alcoa-Alcoa-USA-Assignment#page79.tif
source=Alcoa-Alcoa-USA-Assignment#page80.tif
source=Alcoa-Alcoa-USA-Assignment#page81.tif
source=Alcoa-Alcoa-USA-Assignment#page82.tif
source=Alcoa-Alcoa-USA-Assignment#page83.tif
source=Alcoa-Alcoa-USA-Assignment#page84.tif
source=Alcoa-Alcoa-USA-Assignment#page85.tif
source=Alcoa-Alcoa-USA-Assignment#page86.tif
source=Alcoa-Alcoa-USA-Assignment#page87.tif
source=Alcoa-Alcoa-USA-Assignment#page88.tif
source=Alcoa-Alcoa-USA-Assignment#page89.tif
source=Alcoa-Alcoa-USA-Assignment#page90.tif
source=Alcoa-Alcoa-USA-Assignment#page91.tif
source=Alcoa-Alcoa-USA-Assignment#page92.tif
source=Alcoa-Alcoa-USA-Assignment#page93.tif
source=Alcoa-Alcoa-USA-Assignment#page94.tif
source=Alcoa-Alcoa-USA-Assignment#page95.tif
source=Alcoa-Alcoa-USA-Assignment#page96.tif
source=Alcoa-Alcoa-USA-Assignment#page97.tif
source=Alcoa-Alcoa-USA-Assignment#page98.tif
source=Alcoa-Alcoa-USA-Assignment#page99.tif
source=Alcoa-Alcoa-USA-Assignment#page100.tif
source=Alcoa-Alcoa-USA-Assignment#page101.tif
source=Alcoa-Alcoa-USA-Assignment#page102.tif

source=Alcoa-Alcoa-USA-Assignment#page103.tif

source=Alcoa-Alcoa-USA-Assignment#page104.tif

source=Alcoa-Alcoa-USA-Assignment#page105.tif

source=Alcoa-Alcoa-USA-Assignment#page106.tif

PATENT

REEL: 053585 FRAME: 0378

ASSIGNMENT

WHEREAS, Alcoa Inc. a company organized and existing under the laws of Pennsylvania, has rights in those inventions set forth on Schedules A and B attached hereto for which patents were issued by the relevant patent offices, applications were filed with the relevant patent offices and/or invention reports have been created (all of the foregoing collectively referred to as ("Patents")), as set forth on Schedules A and B.

WHEREAS, Alcoa Inc. also has rights in those R Nos. and C Alloys set forth in Schedules C and D, respectively.

WHEREAS, the Aluminum Company of America changed its name to Alcoa Inc. effective January 1, 1999, and any Patents with assignments reflecting Aluminum Company of America as the assignee are owned by Alcoa Inc.

WHEREAS, Alcoa USA Corp., a company organized and existing under the laws of Delaware, (hereinafter referred to as ASSIGNEE), is desirous of acquiring Alcoa Inc.'s entire interest in, to and under: (i) Patents or similar legal protection obtained and/or to be obtained therefore in any and all countries; and (ii) the R Nos. and C Alloys .

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, Alcoa Inc. hereby sells, assigns and transfers to ASSIGNEE its full right, including any future right, title and interest to all: (i) Patents or similar legal protection in any and all countries obtained and/or to be obtained for Patents, or any continuations, continuation-in-parts, divisionals, renewals, substitutes or reissues thereof or any legal equivalents thereof in any country for the full term or terms for which the same may be granted; and (ii) the R Nos. and C Alloys.

Alcoa Inc. COVENANTS that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to Patent and legal equivalents in all relevant countries as may be known and accessible to us and we will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce, Patents and equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

[acknowledgement & signature page follows]

Docket No.:

Acknowledged and Agreed to On behalf of Alcoa Inc. (ASSIGNOR)

Signature:

Max W. Laun

Name

(printed):

Max W. Laun

Title:

VP & General Counsel

Citizenship:

USA

Dated:

10/25/2016

Witness:

Trileise Barber

Name:

Trileise Barber

Date:

10/25/2016

Acknowledged and Agreed to on behalf of Alcoa USA Corp. (ASSIGNEE)

Signature:

John Kenna

Name

(printed):

John Kenna

Title:

vice president - legal

Citizenship:

USA

Dated:

10/26/16

Witness:

Renee L. Scholtz

Name:

Renee L. Scholtz

Date:

10/26/16

Schedule A(Alcoa Inc.)

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Manufacturing Process to Produce Litho Sheet	Korea (South)	3/30/2007	10-2008-7026631	10-1152169	Granted	Alcoa Inc.
Al-Si-Mg-Mn Casting Alloy and Method (Foundry alloy)	US	2/27/2003	10/376,913	6,773,666	Granted	Alcoa Inc.
Process and Apparatus for Positioning Replacement Anodes in Electrolytic Cells	Australia	4/23/2004	2004235338	2004235338	Granted	Alcoa Inc.
Process and Apparatus for Positioning Replacement Anodes in Electrolytic Cells	Canada	4/23/2004	2,523,656	2,523,656	Granted	Alcoa Inc.
Process and Apparatus for Positioning Replacement Anodes in Electrolytic Cells	Norway	4/23/2004	20055439		Pending	Alcoa Inc.
Process and Apparatus for Positioning Replacement Anodes in Electrolytic Cells	US	4/25/2003	10/423,654	7,001,497	Granted	Alcoa Inc.
Process and Apparatus for Positioning Replacement Anodes in Electrolytic Cells	South Africa	4/23/2004	2005/09089	2005/09089	Granted	Alcoa Inc.
Methods for Determining Green Electrode Electrical Resistivity and Methods for Making Electrodes	Canada	12/23/2013	2,894,555		Pending	Alcoa Inc.

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Methods for Determining Green Electrode Electrical Resistivity and Methods for Making Electrodes	China	12/23/2013	201380069668.3		Pending	Alcoa Inc.
Methods for Determining Green Electrode Electrical Resistivity and Methods for Making Electrodes	EPO	12/23/2013	13867872.7		Pending	Alcoa Inc.
Methods for Determining Green Electrode Electrical Resistivity and Methods for Making Electrodes (XR 15-108676)	US	12/23/2013	14/139,444		Pending	Alcoa Inc.
Lubricated Sheet Product and Lubricant Composition	US	3/17/1999	09/271,423	6,207,286	Granted	Alcoa Inc.
Fertilizer Compositions and Methods of Making the Same (Eureka/Polonium)	PCT	2/20/2015	PCT/US15/16840		Pending	Alcoa Inc.
Fertilizer Compositions and Methods of Making the Same (Eureka/Polonium)	US	2/20/2015	14/627,803		Pending	Alcoa Inc.
Aluminum Melting Apparatus	US	3/6/2013	13/786,967	8,917,754	Granted	Alcoa Inc.
Interlocking Wettable Ceramic Tiles	US	7/29/2002	10/206,472	6,863,788	Granted	Alcoa Inc.
Multilayer Electrode (Anode) (XR03-1842,10-0135,14-0933)	US	7/28/2015	62/197,752		Pending	Alcoa Inc.

NJ 229068373v1

4

NY 246148975v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Anode Apparatus and Methods Regarding the Same (Anode Assembly)	US	9/15/2015	62/218,692		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cell Sidewalls (Cell)	China	9/10/2015	201510916128.7		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cell Sidewalls (Cell)	China	9/10/2015	201521026988.5		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cell Sidewalls (Cell)	PCT	9/8/2015	PCT/US15/48903		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cell Sidewalls (Cell)	US	9/8/2015	14/847,926		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cell Sidewalls (Cell)	China	9/10/2015	201510881834.2		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cell Sidewalls (Cell)	China	9/10/2015	201520995619		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cell Sidewalls (Cell)	PCT	9/8/2015	PCT/US15/48871		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cell Sidewalls (Cell)	US	9/8/2015	14/847,668		Pending	Alcoa Inc.

NJ 229868373v1

8

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Method of Making Ceramic Powders and Ceramic Products (with brake pads) (Cathode)(XR 14-0262, 13-0163, 09-0907, 09-1014, 14-0951, 13-0166, 14-1490, 14-0099)	US	4/10/2015	62/145,779		Pending	Alcoa Inc.
Method of Making Ceramic Powders (without brake pads) (Cathode)(XR 14-0262, 13-0163, 09-0907, 09-1014, 14-0951, 13-0166, 14-1490, 14-0099)	US	4/10/2015	62/145,797		Pending	Alcoa Inc.
Systems and Methods for Purifying Aluminum	PCT	2/11/2016	PCT/US16/17576		Pending	Alcoa Inc.
Systems and Methods for Purifying Aluminum	US	2/11/2016	15/041,899		Pending	Alcoa Inc.
Method of Converting Hall-Heroult Cells to Inert Anode Cells for Aluminum Production	Russia	2/23/2001	2002-125,383	2265082	Granted	Alcoa Inc.
Inert Anode Containing Oxides of Nickel, Iron, and Zinc Useful for the Electrolytic Production of Metals	US	4/4/2000	09/542,318	6,423,195	Granted	Alcoa Inc.
Apparatuses and Systems for Vertical Electrolysis Cells (Cathode) XR: 14-0622, 14-0901	US	3/31/2015	62/140,978		Pending	Alcoa Inc.

NJ 229868373v1

6

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Apparatuses and Systems for Vertical Electrolysis Cells (Cathode) XR: 14-0622, 14-0901	US	7/1/2015	62/187,388		Pending	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting (TiB2)	Australia	7/28/2010	2010281392	2010281392	Granted	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting (TiB2)	Australia	7/28/2010	2014200780		Pending	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting (TiB2)	Brazil	7/28/2010	112012002034-0		Pending	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting (TiB2)	Brazil	7/28/2010	BR122013010012-1		Pending	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting (TiB2)	Canada	7/28/2010	2,768,992		Pending	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting (TiB2)	China	7/28/2010	201080040756.9	ZL201080040756.9	Granted	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting (TiB2)	China	7/28/2010	201410321745.8		Pending	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting (TiB2)	China	7/28/2010	201510481589.6		Pending	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting (TiB2)	EPO	7/28/2010	10806928.7		Pending	Alcoa Inc.

NJ 229888373v1

7

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Composition for Making Wettable Cathode in Aluminum Smelting (TIB2)	Russia	7/28/2010	2012107070	2540953	Granted	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting (TIB2)	Russia	10/30/2014	2014144006		Pending	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting	US	11/21/2014	14/549,628		Pending	Alcoa Inc.
Composition for Making Wettable Cathode in Aluminum Smelting	US	7/28/2010	12/845,540	8,211,278	Granted	Alcoa Inc.
Inert Anode Containing Oxides of Nickel, Iron, and Cobalt Useful for the Electrolytic Production of Metals	US	4/4/2000	09/542,320	6,372,119	Granted	Alcoa Inc.
Protecting An Inert Anode From Thermal Shock	Australia	2/6/2004	2004200431	2004200431	Granted	Alcoa Inc.
Protecting An Inert Anode From Thermal Shock	Canada	2/25/2004	2,458,692	2,458,692	Granted	Alcoa Inc.
Protecting An Inert Anode From Thermal Shock	Canada	2/25/2004	2,753,404	2,753,404	Granted	Alcoa Inc.
Insulation Assemblies for Metal Production Cells	US	7/18/2001	09/908,253	6,723,221	Granted	Alcoa Inc.
Electrolytic Production of High Purity Aluminum Using Ceramic Inert Anodes	US	4/16/2001	09/835,595	6,416,649	Granted	Alcoa Inc.

NJ 229868373v1

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	Australia	3/4/2004	2004233150	2004233150	Granted	Alcoa Inc.
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	Brazil	3/4/2004	PI0408980-4	PI0408980-4	Granted	Alcoa Inc.
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	Brazil	3/4/2004	1.22613E+11		Pending	Alcoa Inc.
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	Canada	3/4/2004	2,519,170	2,519,170	Granted	Alcoa Inc.
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	EPO	3/4/2004	4717476.8		Pending	Alcoa Inc.
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	EPO	3/4/2004	14190713.9		Pending	Alcoa Inc.
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	Norway	3/4/2004	20055096		Pending	Alcoa Inc.
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	Russia	3/4/2004	2005133706	2299276	Granted	Alcoa Inc.

NJ 229858373v1

9

NY 245148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	South Africa	3/4/2004	2005/07999	2005/07999	Granted	Alcoa Inc.
Inert Anode Assembly	Australia	11/19/2003	2003295728	2003295728	Granted	Alcoa Inc.
Inert Anode Assembly	Brazil	11/19/2003	PI0316672-4		Pending	Alcoa Inc.
Inert Anode Assembly	Canada	11/19/2003	2,506,219	2,506,219	Granted	Alcoa Inc.
Inert Anode Assembly	Canada	11/19/2003	2,775,096	2,775,096	Granted	Alcoa Inc.
Inert Anode Assembly	China	11/19/2003	200380104082.4	ZL200380104082.4	Granted	Alcoa Inc.
Inert Anode Assembly	EPO	11/19/2003	3786931		Pending	Alcoa Inc.
Inert Anode Assembly	EPO	11/19/2003	13183888		Pending	Alcoa Inc.
Inert Anode Assembly	Russia	11/19/2003	2005120002	2293143	Granted	Alcoa Inc.
Stable Inert Anodes Including an Oxide of Nickel, Iron and Aluminum	US	11/8/2002	10/291,874	7,033,469	Granted	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933)	Australia	11/19/2004	2004293842	2004293842	Granted	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933)	Australia	10/4/2007	2007221833	2007221833	Granted	Alcoa Inc.

NJ 229868373v1

10

NY 248148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933)	Brazil	11/19/2004	PI0,416,660-4	PI0416660-4	Granted	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933)	Canada	11/19/2004	2,545,865	2,545,865	Granted	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933)	EPO	11/19/2004	4811915		Pending	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (Inert Anode) (XR03-1842,10-0135,14-0933)	India	11/19/2004	2195/CHENP/2006	231168	Granted	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933)	Norway	11/19/2004	20062874		Pending	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933)	Russia	11/19/2004	2006121432	2344202	Granted	Alcoa Inc.

NJ 229868373v1

11

NY 246148975v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Metal Products and Methods for Forming Components Thereof	US	12/9/2015	62/265,180		Pending	Alcoa Inc.
Process and Products for the Continuous Casting of Flat Rolled Sheet	US	1/21/1998	09/010,160	6,280,543	Granted	Alcoa Inc.
Aluminum Alloys, Aluminum Alloy Products and Methods for Making the Same (ColorKast)	EPO	1/13/2010	10700362.6		Pending	Alcoa Inc.
Aluminum Alloys, Aluminum Alloy Products and Methods for Making the Same (ColorKast)	Korea (South)	1/13/2010	2011-7019046		Pending	Alcoa Inc.
Aluminum Alloys, Aluminum Alloy Products and Methods for Making the Same (ColorKast)	Taiwan	1/15/2010	99101143	1467025	Granted	Alcoa Inc.
Aluminum Alloys, Aluminum Alloy Products and Methods for Making the Same (09-1146) (ColorKast)	US	1/12/2010	12/657,099	8,349,462	Granted	Alcoa Inc.
Aluminum Alloys, Aluminum Alloy Products and Methods for Making the Same (09-1146) (ColorKast)	US	12/3/2012	13/694,457	8,950,465	Granted	Alcoa Inc.
Trailer Hitch	US	10/23/2000	09/694,590	6,464,240	Granted	Alcoa Inc.
Multi-Material Hybrid Bumper	US	7/21/1998	09/120,271	6,308,999	Granted	Alcoa Inc.
Corrosion Grain Growth Resistant Aluminum Alloy	US	7/13/2000	09/616,015	6,503,446	Granted	Alcoa Inc.

NJ 229858373v1

12

NY 246148970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Free Machining Aluminum Alloy Containing Bismuth or Bismuth-Tin for Free Machining and a Method of Use	US	5/23/2000	09/576,813	6,409,966	Granted	Alcoa Inc.
High Performance AlSiCuMg Casting Alloy (PowerKast) (Foundry Alloy)	Brazil	10/26/2012	112014010030-6		Pending	Alcoa Inc.
High Performance AlSiCuMg Casting Alloy (PowerKast) (Foundry Alloy)	Canada	10/26/2012	2,853,728		Pending	Alcoa Inc.
High Performance AlSiCuMg Casting Alloy (PowerKast) (Foundry Alloy)	China	10/26/2012	201280056407.5		Pending	Alcoa Inc.
High Performance AlSiCuMg Casting Alloy (PowerKast) (Foundry Alloy)	EPO	10/26/2012	12787267.9		Pending	Alcoa Inc.
High Performance AlSiCuMg Casting Alloy (PowerKast) (Foundry Alloy)	Mexico	10/26/2012	MX/a/2014/005099		Pending	Alcoa Inc.
High Performance AlSiCuMg Casting Alloy (PowerKast) (Foundry Alloy)	US	10/26/2012	13/662,132		Pending	Alcoa Inc.
High Performance AlSiMgCu Casting Alloy (Foundry Alloy)	PCT	12/17/2014	PCT/US14/70938		Pending	Alcoa Inc.
High Performance AlSiMgCu Casting Alloy (Foundry Alloy)	US	12/18/2014	14/574,933		Pending	Alcoa Inc.

NJ 228068373v1

13

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Improved 7XXX Aluminum Casting Alloys, and Methods for Making the Same (related to C62S)(Foundry Alloy)	PCT	4/23/2015	PCT/US15/27224		Pending	Alcoa Inc.
Improved 7XXX Aluminum Casting Alloys, and Methods for Making the Same (related to C62S)(Foundry Alloy)	US	4/23/2015	14/694,109		Pending	Alcoa Inc.
Improved 3XX Aluminum Casting Alloys, and Methods for Making the Same (C891F)(Foundry Alloy)(X Ref 15-111356 agt)	US	8/13/2015	62/204,762		Pending	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Austria	4/22/2002	2728917.2	EP1381700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Australia	6/20/2008	2008202738	2008202738	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Belgium	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.

NJ 229868373v1

14

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Brazil	4/22/2002	PI0208080-0	PI0208080-0	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Canada	4/22/2002	2,438,883	2,438,883	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Switzerland	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	China	4/22/2002	2806584	ZL0280658 4.0	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Cyprus	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Czech Republic	4/22/2002	PV2467/03	304962	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Germany	4/22/2002	2,728,917.20	EPO1,381,700	Granted	Alcoa Inc.

NJ 229868373v1

15

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Denmark	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	EPO	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Spain	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Finland	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	France	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	United Kingdom	4/22/2002	2,728,917.20	EP 1381700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Greece	4/22/2002	2,728,917.20	3057804	Granted	Alcoa Inc.

NJ 229868373v1

16

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Hungary	4/22/2002	P0,303,218	226 507	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Ireland	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Italy	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Luxembourg	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Monaco	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Mexico	4/22/2002	PA/s/2003/008184	255286	Granted	Alcoa Inc.

NJ 229868373v1

17

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Aluminum Alloys with Optimum Combinations of Formability, Corrosion Resistance, and Hot Workability, and Methods of Use	Mexico	1/8/2001	PA/a/2001/000156	219,661	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Netherlands	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloys with Optimum Combinations of Formability, Corrosion Resistance, and Hot Workability, and Methods of Use	Netherlands	12/22/2000	1,016,977	1,016,977	Granted	Alcoa Inc.
Aluminum Alloys with Optimum Combinations of Formability, Corrosion Resistance, and Hot Workability, and Methods of Use	Norway	12/22/2000	2000-6649	333523	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Poland	4/22/2002	P-363,919	198792	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Portugal	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.

NJ 229868373v1

18

NY 246148676v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Sweden	4/22/2002	2,728,917.20	EPO 1,381,700	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance, Methods of Manufacturing and Its Use	Turkey	4/22/2002	2,728,917.20	TR 2006 04465 T4	Granted	Alcoa Inc.
Aluminum Alloys with Optimum Combinations of Formability, Corrosion Resistance, Hot Workability, and Methods of Use (3026 alloy?)	US	5/3/2000	09/564,053	6,458,224	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance and Methods of Making and Use	US	4/23/2001	09/840,576	6,602,363	Granted	Alcoa Inc.
Aluminum Alloys with Optimum Combinations of Formability, Corrosion Resistance, Hot Workability, and Methods of Use	US	8/20/2002	10/225,378	6,656,296	Granted	Alcoa Inc.
Convenience Easy Opening End with Large Removal Panel	US	9/19/1997	08/934,424	5,934,498	Granted	Alcoa Inc.
Methods for Transferring Holographic Images into Metal Surfaces	US	12/27/1999	09/473,246	7,094,502	Granted	Alcoa Inc.

NJ 229868373v1

19

NY 246148970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Easy-Open Misting Container	US	4/19/1999	09/294,982	6,375,029	Granted	Alcoa Inc.
Electrocoating Process for Making Lithographic Sheet Material	US	3/3/2000	09/519,018	6,405,651	Granted	Alcoa Inc.
Printing Plate Material with Electrocoated Layer	US	8/22/2000	09/644,010	6,374,737	Granted	Alcoa Inc.
Printing Plate Material with Electrocoated Layer	US	2/8/2002	10/071,541	6,631,679	Granted	Alcoa Inc.
Metal End Shell and Easy Opening Can End for Beer and Beverage Cans	US	12/27/2001	10/033,257	6,761,280	Granted	Alcoa Inc.
Printing Plate	US	9/14/2000	09/662,400	6,521,391	Granted	Alcoa Inc.
Printing Plate	US	2/5/2003	10/358,750	7,067,232	Granted	Alcoa Inc.
Radiation Treatable Printing Plate	US	10/5/2000	09/680,363	6,569,601	Granted	Alcoa Inc.
Printing Plate	US	2/5/2003	10/358,811	6,749,992	Granted	Alcoa Inc.
Curved Back Reclosable Metal Packaging Unit	US	3/12/2003	10/387,880	6,929,120	Granted	Alcoa Inc.
Method for Embossing Holograms Into Aluminum and Other Hard Substrates	US	11/26/1997	08/978,916	6,017,657	Granted	Alcoa Inc.
Process for Making a Metal-Polymer Composite Having an Irradiated Polymer Coating	US	11/25/2003	10/721,484	7,371,432	Granted	Alcoa Inc.
Can End Rotation Resisting Apparatus and Method	Australia	8/5/2003	2003258105	2003258105	Granted	Alcoa Inc.
Can End Rotation Resisting Apparatus and Method	Mexico	8/5/2003	PA/a/2005/001305	248378	Granted	Alcoa Inc.

NJ 229868373v1

20

NY 246148970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Apparatus for Resisting Rotation of Can Ends in a Downstacker and Method Regarding Same	US	8/6/2002	10/212,328	6,887,030	Granted	Alcoa Inc.
Primer for Radiation Curable Coating Compositions	US	9/11/2002	10/241,632	6,696,106	Granted	Alcoa Inc.
Ceramic Applicator Device and Method of Use	US	8/9/2002	10/216,325	6,673,391	Granted	Alcoa Inc.
Can End, Tooling for Manufacture of the Can End and SeamingChuck Adapted to Affix a Converted CanEnd to a Can Body (B143)	Brazil	8/19/2003	PI0316333-4	PI0316333-4	Granted	Alcoa Inc.
Can End, Tooling for Manufacture of the Can End and SeamingChuck Adapted to Affix a Converted CanEnd to a Can Body (B143)	Canada	8/19/2003	2,504,251	2,504,251	Granted	Alcoa Inc.
Can End, Tooling for Manufacture of the Can End and SeamingChuck Adapted to Affix a Converted CanEnd to a Can Body (B143)	China	8/19/2003	3825282.1	ZL0382528 2.1	Granted	Alcoa Inc.
Can End, Tooling for Manufacture of the Can End and SeamingChuck Adapted to Affix a Converted CanEnd to a Can Body (B143)	Japan	8/19/2003	2004-553416	4203016	Granted	Alcoa Inc.

NJ 229868373v1

21

NY 246148970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Can End, Tooling for Manufacture of the Can End and SeamingChuck Adapted to Affix a Converted CanEnd to a Can Body ("B143 Can End Technology")	US	11/19/2002	10/300,566	6,736,283	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Argentina	5/16/2007	70102122	AR060964	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Australia	5/14/2007	2007254362	2007254362	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Australia	5/14/2007	2010244089	2010244089	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Brazil	5/14/2007	PI0712097-4		Pending	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Brazil	5/14/2007	PI0722419-2		Pending	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Canada	5/14/2007	2,651,778	2,651,778	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Chile	5/16/2007	1401-2007	47,084	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	China	5/14/2007	200780023916.7	ZL200780023916.7	Granted	Alcoa Inc.

NJ 229868373v1

22

NY 246148576v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Manufacturing Process to Produce a Necked Container (Super Necking)	China	5/14/2007	201010284367.2	ZL201010284367.2	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	EAPO (Eurasian)	5/14/2007	200870536	18389	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Russia	5/14/2007	201100102	21995	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Russia	5/14/2007	200870536	18389	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Egypt	5/14/2007	2008/1841	25876	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Egypt	5/14/2007	DI/PCT 2008/1841		Pending	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Austria	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Belgium	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Czech Republic	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Germany	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.

NJ 229068373v1

23

NY 248148978v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Manufacturing Process to Produce a Necked Container (Super Necking)	EPO	5/14/2007	12150086.2		Pending	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Denmark	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Spain	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Finland	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	France	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	United Kingdom	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Greece	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Hungary	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Ireland	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Italy	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.

NJ 229868373v1

24

NY 248148976v1

Bucket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Manufacturing Process to Produce a Necked Container (Super Necking)	Netherlands	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Poland	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Portugal	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Romania	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Sweden	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Slovakia	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Turkey	5/14/2007	7777035.2	2021136	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Gulf Cooperation Council	5/14/2007	8314		Pending	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Gulf Cooperation Council	5/14/2007	18914		Pending	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Guatemala	5/14/2007	2008-00246	5733	Granted	Alcoa Inc.

NJ 229868373v1

25

NY 246148576v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Manufacturing Process to Produce a Necked Container (Super Necking)	Guatemala	5/6/2011	2011-00111		Pending	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Indonesia	5/14/2007	W-00200803711	ID P0026760	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	India	5/14/2007	4775/KOLNP/2008		Pending	Alcoa Inc.
A Necking System and a Method of Necking a Metal Blank (Super Necking)	India	4/19/2011	1616/KOLNP/2011		Pending	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Japan	5/14/2007	2009-511014	5443161	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Japan	7/6/2011	2011-149702	5443443	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Korea (South)	5/14/2007	2008-7028885	1094108	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Mexico	5/14/2007	MX/a/2008/014434	291767	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Mexico	5/14/2007	MX/a/2011/004732		Pending	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Malaysia	5/14/2007	PI 20084619	MY-145430-A	Granted	Alcoa Inc.

NJ 229868373v1

26

NY 248145976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Manufacturing Process to Produce a Necked Container (Super Necking)	Malaysia	5/14/2007	PI 2011002451	MY-150213-A	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	New Zealand	5/14/2007	573303	573303	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	New Zealand	5/14/2007	593991	593991	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Thailand	5/15/2007	701002398	45430	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	US	5/16/2006	11/383,515	7,726,165	Granted	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	US	4/26/2010	12/767,190	8,322,183	Granted	Alcoa Inc.
Necking System and Method of Necking an Metal Blank (Super Necking)	Vietnam	5/14/2007	1-2008-02937	11940	Granted	Alcoa Inc.
Necking System and Method of Necking an Metal Blank (Super Necking)	Vietnam	5/14/2007	1-2011-00907		Pending	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	South Africa	5/14/2007	2008/10096	2008/10096	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Argentina	6/26/2007	70102815	AR061636B1	Granted	Alcoa Inc.

NJ 229868373v1

27

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Method of Manufacturing Containers (Flexible Can Making Process)	Argentina	6/26/2007	70102841	AR065217	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Argentina	6/26/2007	20120100761		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Australia	5/31/2007	2007265347	2007265347	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Australia	6/26/2007	2007265132	2007265132	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Australia	7/22/2011	2011204938	2011204938	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Brazil	5/31/2007	PI0713779-6		Pending	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Brazil	6/26/2007	PI0713658-7		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Brazil	5/31/2007	PI0722422-2		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Canada	5/31/2007	2,655,908	2,655,908	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Canada	6/26/2007	2,655,925	2,655,925	Granted	Alcoa Inc.

NJ 229868373v1

28

NY 245148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Expanding Die and Method of Shaping Containers (Expansion-Original)	Canada	5/31/2007	2,748,426	2,748,426	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	China	5/31/2007	200780024186.2	ZL200780024186.2	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	China	6/26/2007	200780024250.7	ZL200780024250.7	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	China	5/31/2007	201210022634.8	ZL201210022634.8	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Russia	6/26/2007	200970059	17475	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Russia	5/31/2007	201200059	21215	Granted	Alcoa Inc.
An Expansion Die for Manufacturing Metal Containers and Die System (Expansion-Original)	Russia	5/31/2007	200970058	18405	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Egypt	5/31/2007	2008/12/2030	25472	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Egypt	6/26/2007	2088/2008	25191	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Egypt	5/31/2007	D1/2008/2030	26491	Granted	Alcoa Inc.

NJ 229868373v1

29

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Expanding Die and Method of Shaping Containers (Expansion-Original)	Austria	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Belgium	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Austria	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Belgium	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Czech Republic	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Germany	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Denmark	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Spain	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Finland	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	France	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.

NJ 229868373v1

30

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Method of Manufacturing Containers (Flexible Can Making Process)	United Kingdom	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Greece	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Hungary	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Ireland	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Italy	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Netherlands	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Poland	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Portugal	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Romania	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Sweden	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.

NJ 229868373v1

31

NY 246148876v1

Bucket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Method of Manufacturing Containers (Flexible Can Making Process)	Slovakia	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Turkey	6/26/2007	7799029.9	2035166	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Czech Republic	5/31/2007	7797928.4	EP2035163	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Germany	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Austria	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Czech Republic	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Germany	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Denmark	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Spain	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Finland	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.

NJ 229868373v1

32

NY 245148975v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Expanding Die and Method of Shaping Containers (Expansion-Original)	France	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	United Kingdom	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Italy	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Netherlands	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Poland	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Sweden	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Slovakia	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Turkey	5/31/2007	11163270.9	2359954	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	EPO	5/31/2007	16152672.8		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Denmark	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.

NJ 229668373v1

33

NY 246148876v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Expanding Die and Method of Shaping Containers (Expansion-Original)	Spain	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Finland	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	France	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	United Kingdom	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Greece	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Hungary	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Ireland	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Italy	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Netherlands	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Poland	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.

NJ 229668373v1

34

NY 246148876v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Expanding Die and Method of Shaping Containers (Expansion-Original)	Portugal	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Romania	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Sweden	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Slovakia	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Turkey	5/31/2007	7797928.4	EP2035165	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Gulf Cooperation Council	6/4/2007	8439	3212	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Gulf Cooperation Council	6/26/2007	8594		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Gulf Cooperation Council	6/4/2007	20314 GC-2012		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Guatemala	5/31/2007	A-2008-0293	5645	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Guatemala	6/26/2007	A-2008-0292	5721	Granted	Alcoa Inc.

NJ 228868373v1

35

NY 248148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Expanding Die and Method of Shaping Containers (Expansion-Original)	Guatemala	5/31/2007	A-2008-0293A		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Indonesia	5/31/2007	W-00200804205	ID P0029706	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Indonesia	6/26/2007	W-00200804206	32130	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Indonesia	5/31/2007	W-00201103902		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	India	5/31/2007	304/KOLNP/2009		Pending	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	India	6/26/2007	219/KOLNP/2009		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	India	5/31/2007	4715/KOLNP/2011		Pending	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Japan	6/26/2007	2009-518502	5132680	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Korea (South)	5/31/2007	2009-7001265	1111585	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Korea (South)	6/26/2007	2009-7001514	1114302	Granted	Alcoa Inc.

NJ 229568373v1

36

NY 246148076v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Expanding Die and Method of Shaping Containers (Expansion-Original)	Korea (South)	5/31/2007	2011-7010701	1146188	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Mexico	5/31/2007	MX/a/2008/016070	294500	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Mexico	6/26/2007	MX/a/2008/016427	297127	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Mexico	6/26/2007	MX/a/2011/013807	313289	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Mexico	5/31/2007	MX/a/2011/011567	323998	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Malaysia	5/31/2007	PI 20085324	146903-A	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Malaysia	6/26/2007	PI 20085325	146328	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Malaysia	12/3/2009	PI 20095157	MY-154487-A	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Malaysia	2/12/2010	PI 2010000682		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	New Zealand	5/31/2007	574797	574797	Granted	Alcoa Inc.

NJ 229058373v1

37

NY 245148975v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Method of Manufacturing Containers (Flexible Can Making Process)	New Zealand	6/26/2007	574204	574204	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	New Zealand	5/31/2007	595069	595069	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Thailand	6/26/2007	701003203		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	US	6/26/2006	11/474,581	7,934,410	Granted	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	US	6/26/2007	11/768,267	7,954,354	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	US	3/22/2011	13/053,972	8,555,692	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Venezuela	6/26/2007	01372-2007		Pending	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	Venezuela	6/26/2007	01370-2007		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Venezuela	6/26/2007	00579-2011		Pending	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Vietnam	5/31/2007	1-2009-00143	9618	Granted	Alcoa Inc.

NJ 229888373v1

38

NY 246148975v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Method of Manufacturing Containers (Flexible Can Making Process)	Vietnam	6/26/2007	1-2009-00155	13334	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	Vietnam	5/26/2011	1-2011-01361	12720	Granted	Alcoa Inc.
Expanding Die and Method of Shaping Containers (Expansion-Original)	South Africa	5/31/2007	2009/00415	2009/00415	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Australia	7/12/2007	2007272421	2007272421	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Brazil	7/12/2007	PI0712887-8		Pending	Alcoa Inc.
Vent Tube for Liquid Container	Canada	7/12/2007	2,657,391	2,657,391	Granted	Alcoa Inc.
A Container Lid and a Container Having the Same	China	7/12/2007	200780026334.4	ZL200780026334.4	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Germany	7/12/2007	7799532.2	EP2038178	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Denmark	7/12/2007	7799532.2	EP2038178	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Spain	7/12/2007	7799532.2	EP2038178	Granted	Alcoa Inc.
Vent Tube for Liquid Container	France	7/12/2007	7799532.2	EP2038178	Granted	Alcoa Inc.
Vent Tube for Liquid Container	United Kingdom	7/12/2007	7799532.2	EP2038178	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Italy	7/12/2007	7799532.2	EP2038178	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Poland	7/12/2007	7799532.2	EP2038178	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Sweden	7/12/2007	7799532.2	EP2038178	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Turkey	7/12/2007	7799532.2	EP2038178	Granted	Alcoa Inc.
Vent Tube for Liquid Container	India	7/12/2007	5243/KOLNP/2008		Pending	Alcoa Inc.

NJ 229868373v1

39

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Liquid Container Having Vent Tube	Japan	7/12/2007	2009-519693	5058254	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Mexico	7/12/2007	MX/a/2009/000019	294541	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Russia	7/12/2007	2009104690	2408511	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Thailand	7/11/2007	701003484		Pending	Alcoa Inc.
Vent Tube for Liquid Container	US	7/12/2006	11/485,521	7,975,884	Granted	Alcoa Inc.
Vent Tube for Liquid Container	Venezuela	7/10/2007	01480-2007		Pending	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Australia	6/26/2009	2009261974	2009261974	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Brazil	6/26/2009	PI0914592-3		Pending	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Canada	6/26/2009	2,728,678		Pending	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	China	6/26/2009	200980123831.5	ZL200980123831.5	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Austria	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.

NJ 229568373v1

40

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Double-Walled Container and Method of Manufacture (Double-Walled)	Czech Republic	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Germany	6/26/2009	9771197.2	6.02009E+11	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Denmark	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Spain	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Finland	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	France	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	United Kingdom	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Italy	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.

NJ 229868373v1

41

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Double-Walled Container and Method of Manufacture (Double-Walled)	Netherlands	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Poland	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Sweden	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Slovakia	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Turkey	6/26/2009	9771197.2	2323924	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	India	6/26/2009	4685/KOLNP/2010		Pending	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Japan	6/26/2009	2011-516732	5296203	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Korea (South)	6/26/2009	2011-7001917		Pending	Alcoa Inc.

NJ 229868373v1

42

NY 248148376v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Double-Walled Container and Method of Manufacture (Double-Walled)	Mexico	6/26/2009	MX/a/2010/013556	314308	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Russia	6/26/2009	2011102771	2509701	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	US	6/26/2009	12/492,963	8,132,687	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	Vietnam	6/26/2009	1-2011-00077	14138	Granted	Alcoa Inc.
Double-Walled Container and Method of Manufacture (Double-Walled)	South Africa	6/26/2009	2011/00555	2011/00555	Granted	Alcoa Inc.
Metallic End Closure for a Container (Vent Tube Patent Assigned from Ball Corp to Alcoa)	US	6/28/2007	29/281,672	D559,680	Granted	Alcoa Inc.
Can (grip design)	United Arab Emirates	11/10/2010	368/2010		Pending	Alcoa Inc.
Can (grip design)	Argentina	11/10/2010	81658	81658	Granted	Alcoa Inc.
Can (grip design)	Australia	10/21/2010	14536/2010	333645	Granted	Alcoa Inc.
Can (grip design)	Bahrain	11/11/2010	1055	BT-1055	Granted	Alcoa Inc.
Can (grip design)	Brazil	11/12/2010	DI7005404-5	DI7005404-5	Granted	Alcoa Inc.
Can (grip design)	Canada	10/21/2010	137616	137616	Granted	Alcoa Inc.
Can (grip design)	China	11/12/2010	201030608666.8	ZL201030608666.8	Granted	Alcoa Inc.
Can (grip design)	European	11/11/2010	1780164	1780164	Granted	Alcoa

NJ 229868373v1

43

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
	Union					Inc.
Can (grip design)	Indonesia	11/8/2010	A-001003394	ID0028929-D	Granted	Alcoa Inc.
Can (grip design)	India	11/12/2010	232615	232615	Granted	Alcoa Inc.
Can (grip design)	Japan	10/26/2010	2010-23694	1416306	Granted	Alcoa Inc.
Can (grip design)	Korea (South)	11/12/2010	2010-0049002	30-0599270	Granted	Alcoa Inc.
Aluminum Can (grip design)	Kuwait	11/9/2010	92/2010		Pending	Alcoa Inc.
Can (grip design)	Mexico	11/9/2010	MX/6/2010/002990	35016	Granted	Alcoa Inc.
Can (grip design)	Malaysia	11/12/2010	10-01423-0101	10-01423-0101	Granted	Alcoa Inc.
Can (grip design)	Oman			Published	Granted	Alcoa Inc.
Can (grip design)	Qatar			Published	Granted	Alcoa Inc.
Can (grip design)	Russia	11/12/2010	2010503318	80924	Granted	Alcoa Inc.
Drink Cans (grip design)	Saudi Arabia	11/7/2010	410310359	1797	Granted	Alcoa Inc.
Can (grip design)	Thailand	11/12/2010	1002003231	38823	Granted	Alcoa Inc.
Can (grip design)	US	5/13/2010	29/361,610	D-628,905	Granted	Alcoa Inc.
Can (grip design)	Vietnam	11/5/2010	3-2010-01453	16076	Granted	Alcoa Inc.
Can (grip design)	South Africa	11/12/2010	A2010/01518	A2010/01518	Granted	Alcoa Inc.
Can (Barbell design)	United Arab Emirates	11/10/2010	369/2010		Pending	Alcoa Inc.
Can (Barbell design)	Argentina	11/10/2010	81659	81659	Granted	Alcoa Inc.
Can (Barbell design)	Australia	10/29/2010	14669/2010	333831	Granted	Alcoa Inc.
Can (Barbell design)	Bahrain	11/11/2010	1054	BT-1054	Granted	Alcoa Inc.
Can (Barbell design)	Brazil	11/11/2010	DI7005330-8	DI7005330-8	Granted	Alcoa Inc.
Can (Barbell design)	Canada	11/9/2010	137860	137860	Granted	Alcoa Inc.
Can (Barbell design)	China	11/12/2010	201030608625.9	ZL201030608625.9	Granted	Alcoa Inc.
Can (Barbell design)	European Union	11/12/2010	1780743	1780743	Granted	Alcoa Inc.
Can (Barbell design)	Indonesia	11/8/2010	A-00201003393	ID0028928-D	Granted	Alcoa Inc.
Can (Barbell design)	India	11/12/2010	232616	232616	Granted	Alcoa Inc.
Can (Barbell design)	Korea (South)	11/12/2010	2010-0049004	30-0599264	Granted	Alcoa

NI 229868373v1

44

NY 248148676v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
						Inc.
Aluminum Can (Barbell design)	Kuwait	11/9/2010	ID 91/2010		Pending	Alcoa Inc.
Can (Barbell design)	Mexico	11/9/2010	MXD/E/2010/002991	35017	Granted	Alcoa Inc.
Can (Barbell design)	Malaysia	11/12/2010	10-01424-0101	10-01424-0101	Granted	Alcoa Inc.
Can (Barbell design)	Oman			Published	Granted	Alcoa Inc.
Can (Barbell design)	Qatar			Published	Granted	Alcoa Inc.
Can (Barbell design)	Russia	11/12/2010	2010503317	80923	Granted	Alcoa Inc.
Can (Barbell design)	Saudi Arabia	11/7/2010	410310360	1976	Granted	Alcoa Inc.
Can (Barbell design)	Thailand	11/12/2010	1002003232	38709	Granted	Alcoa Inc.
Can (Barbell design)	US	5/13/2010	29/361,613	D-628,906	Granted	Alcoa Inc.
Can (Barbell design)	Vietnam	11/5/2010	3-2010-01456	16461	Granted	Alcoa Inc.
Can (Barbell design)	South Africa	11/12/2010	A2010/01517	A2010/01517	Granted	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Australia	8/22/2011	2011291482	2011291482	Granted	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Brazil	8/22/2011	112013004004-1		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Canada	8/22/2011	2,807,696		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Chile	8/22/2011	476-2013		Pending	Alcoa Inc.

NJ 229868373v1

45

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	China	8/22/2011	201180040264.4		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	EAPC (Eurasian)	8/22/2011	201390258		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Egypt	8/22/2011	PCT 275/2013		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	EPO	8/22/2011	11751757.3		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Gulf Cooperation Council	8/20/2011	2011/19100		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Guatemala	8/22/2011	A-2013-00042		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Indonesia	8/22/2011	W00201301184		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	India	8/22/2011	1422/CHENP/2013		Pending	Alcoa Inc.

NJ 229868373v1

46

NY 246148876v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Korea (South)	8/22/2011	2013-7006999		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Mexico	8/22/2011	MX/a/2013/001802		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Malaysia	8/22/2011	PI 2013700266		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	New Zealand	8/22/2011	606434	606434	Granted	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Thailand	8/22/2011	1301000827		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	US	8/22/2011	13/214,676		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	Vietnam	8/22/2011	1-2013-000823		Pending	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	South Africa	8/22/2011	2013/00968		Pending	Alcoa Inc.
Shaped Cup (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0009	Granted	Alcoa Inc.

NJ 229868373v1

47

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Shaped Cup (Pilsner Design) (Can/Cup Design)	US	8/2/2010	29/367,045	D-654,319	Granted	Alcoa Inc.
Shaped Can (Pilsner Design) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0010	Granted	Alcoa Inc.
Shaped Can (Pilsner Design) (Can/Cup Design)	US	2/14/2011	29/385,418	D-644,127	Granted	Alcoa Inc.
Shaped Can (Bulb Shape) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0001	Granted	Alcoa Inc.
Shaped Can (Bulb Shape) (Can/Cup Design)	US	2/14/2011	29/385,403	D-644,126	Granted	Alcoa Inc.
Shaped Can (Goblet) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0002	Granted	Alcoa Inc.
Shaped Can (Goblet) (Can/Cup Design)	US	8/2/2010	29/367,041	D-643,752	Granted	Alcoa Inc.
Shaped Can (Europint) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0011	Granted	Alcoa Inc.
Shaped Can (Europint) (Can/Cup Design)	US	7/13/2011	29/397,249	D-661,205	Granted	Alcoa Inc.
Shaped Cup (Bulb Design) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0003	Granted	Alcoa Inc.
Shaped Cup (Bulb Design) (Can/Cup Design)	US	8/2/2010	29/367,046	D-648,178	Granted	Alcoa Inc.
Shaped Cup (Goblet) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0004	Granted	Alcoa Inc.
Shaped Cup (Goblet) (Can/Cup Design)	US	8/2/2010	29/367,047	D-647,371	Granted	Alcoa Inc.
Shaped Cup (Europint Design) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0012	Granted	Alcoa Inc.
Shaped Cup (Europint Design) (Can/Cup Design)	US	8/2/2010	29/367,048	D-651,046	Granted	Alcoa Inc.
Shaped Can (Pilsner V2) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0013	Granted	Alcoa Inc.

NJ 229868373v1

48

NY 246148970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Design)						
Shaped Can (Pilsner V2) (Can/Cup Design)	US	2/14/2011	29/385,408	D-660,724	Granted	Alcoa Inc.
Shaped Can (Goblet V2) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0005	Granted	Alcoa Inc.
Shaped Can (Goblet V2) (Can/Cup Design)	US	8/2/2010	29/367,044	D-646,988	Granted	Alcoa Inc.
Shaped Cup (Goblet V2) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0006	Granted	Alcoa Inc.
Shaped Cup (Goblet V2) (Can/Cup Design)	US	8/2/2010	29/367,050	D-648,179	Granted	Alcoa Inc.
Shaped Cup (Full Body) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0007	Granted	Alcoa Inc.
Shaped Can (Full Body) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0008	Granted	Alcoa Inc.
Shaped Can (Full Body) (Can/Cup Design)	US	2/9/2012	29/412,918	D-675,110	Granted	Alcoa Inc.
Shaped Cup (Pilsner V2) (Can/Cup Design)	European Union	1/31/2011	1813601	001813601-0014	Granted	Alcoa Inc.
Shaped Cup (Pilsner V2) (Can/Cup Design)	US	8/2/2010	29/367,052	D-655,135	Granted	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Australia	12/10/2013	2013363390		Pending	Alcoa Inc.

NJ 229858373v1

49

NY 245148975v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Brazil	12/10/2013	112015014516-7		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Canada	12/10/2013	2,893,366		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Chile	12/10/2013	1677-2015		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	China	12/10/2013	201380066743.2		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Egypt	12/10/2013	997/2015		Pending	Alcoa Inc.

NJ 229868373v1

50

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	EPO	12/10/2013	13814721		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Gulf Cooperation Council	12/18/2013	2013/26047		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Guatemala	12/10/2013	A-2015-000163		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Indonesia	12/10/2013	P-00201504204		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	India	12/10/2013	1736/KOLNP/2015		Pending	Alcoa Inc.

NJ 229868373v1

51

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Japan	12/10/2013	2015-549463		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Korea (South)	12/10/2013	2015-7019221		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Mexico	12/10/2013	MA/u/2015/007431		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Malaysia	12/10/2013	PI 2015702051		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	New Zealand	12/10/2013	629720		Pending	Alcoa Inc.

NJ 229868373v1

52

NY 246148978v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Russia	12/10/2013	2013129520		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Thailand	12/10/2013	1501003475		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	US	12/20/2013	13/722,290		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Venezuela	12/20/2013	01684-2013		Pending	Alcoa Inc.
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	Vietnam	12/10/2013	1-2015-02242		Pending	Alcoa Inc.

NJ 229068373v1

53

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Knockout for Use While Necking a Metal Container, Die System for Necking a Metal Container and Method of Necking a Metal Container (Step Knockout)	South Africa	12/10/2013	2015/04293	2015/04293	Granted	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Australia	12/20/2012	2012359294		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Brazil	12/20/2012	112014015104-0		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Canada	12/20/2012	2,858,094		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Chile	12/20/2012	1660-2014		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	China	12/20/2012	201280066952.2		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	EAPO (Eurasian)	12/20/2012	201491250		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Egypt	12/20/2012	PCT 1023/2014		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	EPO	12/20/2012	12818736.6		Pending	Alcoa Inc.

NJ 229868373v1

54

NY 246148678v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Gulf Cooperation Council	12/22/2012	2012/23171		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Guatemala	12/20/2012	A-2014-000128		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Indonesia	12/20/2012	P-00201404384		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	India	12/20/2012	4409/CHENP/2014		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Japan	12/20/2012	2014-548898		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Korea (South)	12/20/2012	2014-7019606		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Mexico	12/20/2012	MX/a/2014/007425		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Malaysia	12/20/2012	PI2014701669		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	New Zealand	12/20/2012	625920		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Thailand	12/20/2012	1401003525		Pending	Alcoa Inc.

NJ 229888373v1

55

NY 240148970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	US	12/20/2012	13/722,409		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Venezuela	12/21/2012	01735-2012		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	Vietnam	12/20/2012	1-2014-02343		Pending	Alcoa Inc.
Method for Expanding the Diameter of a Metal Container (Ultimate Expansion)	South Africa	12/20/2012	2014/04401		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	Brazil	2/15/2013	112014020239-7		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	Chile	2/15/2013	2124-2014		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	China	2/17/2013	201320241750.9	ZL201320241750.9	Granted	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	Egypt	2/15/2013	1309/2014		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	Guatemala	2/15/2013	A-2014-000176		Pending	Alcoa Inc.

NJ 229868373v1

56

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	India	2/15/2013	1693/KOLNP/2014		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	Mexico	2/15/2013	MX/a/2014/009808		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	Malaysia	2/15/2013	P1 2014702270		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	Thailand	2/15/2013	1401004734		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	US	2/15/2013	13/768,818		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	Venezuela	2/18/2013	00206-2013		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	Vietnam	2/15/2013	1-2014-03008		Pending	Alcoa Inc.
Dies for Shaping Containers and Methods for Making Same (Shot Peening) (X Ref 10-1143)	South Africa	2/15/2013	2014/05982		Pending	Alcoa Inc.

NJ 229868373v1

37

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Aluminum Sheet with Enhanced Formability and an Aluminum Container Made from Aluminum Sheet (Low Spread Bottlestock)	China	4/30/2015	201510312039.1		Pending	Alcoa Inc.
Aluminum Sheet with Enhanced Formability and an Aluminum Container Made from Aluminum Sheet (Low Spread Bottlestock)	PCT	4/30/2015	PCT/US15/28583		Pending	Alcoa Inc.
Manufacturing Process to Produce Litho Sheet	Brazil	3/30/2007	PI0709691-7		Pending	Alcoa Inc.
Anode Cathode Distance Adjustment Device	US	4/7/2000	09/543,972	6,306,279	Granted	Alcoa Inc.
Inert Anode Containing Base Metal and Noble Metal Useful for the Electrolytic Production of Aluminum	US	10/27/1999	09/428,004	6,162,334	Granted	Alcoa Inc.
Method of Converting Hall-Heroult Cells to Inert Anode Cells for Aluminum Production	EPO	2/23/2001	1,913,044.20	EPO 1,259,659	Granted	Alcoa Inc.
Method of Converting Hall-Heroult Cells to Inert Anode Cells for Aluminum Production	US	2/23/2001	09/792,728	6,558,526	Granted	Alcoa Inc.
Electromechanical Attachment of Inert Electrode to a Current Conductor (Inert Anode)	US	12/14/1999	09/461,484	6,264,810	Granted	Alcoa Inc.

NJ 228068373v1

58

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Retrofit Aluminum Smelting Cells Using Inert Anodes and Method	US	1/12/2001	09/759,949	6,551,489	Granted	Alcoa Inc.
Electrolytic Production of High Purity Aluminum Using Inert Anodes	US	11/1/1999	09/431,756	6,217,739	Granted	Alcoa Inc.
Protecting An Inert Anode From Thermal Shock	US	2/25/2003	10/374,002	7,118,666	Granted	Alcoa Inc.
Insulation Assemblies for Metal Production Cells	Australia	7/18/2001	276,972/01	2001276972	Granted	Alcoa Inc.
Insulation Assemblies for Metal Production Cells	Canada	7/18/2001	2,414,856	2,414,856	Granted	Alcoa Inc.
Insulation Assemblies for Metal Production Cells	China	7/18/2001	1812984.6	ZL 01812984.6	Granted	Alcoa Inc.
Sinter-Bonded Direct Pin Connections for Inert Anodes	US	4/2/2003	10/405,761	6,855,234	Granted	Alcoa Inc.
Cermet Inert Anode Materials and Method of Making Same	US	4/1/2002	10/115,112	6,821,312	Granted	Alcoa Inc.
Inert Anode Electrical Connection	US	3/9/2004	10/797,170	7,169,270	Granted	Alcoa Inc.
Synthesis of Multi-Element Oxides Useful for Inert Anode Applications	US	11/13/2002	10/294,186	7,014,881	Granted	Alcoa Inc.
Electrolytic Production of High Purity Aluminum Using Ceramic Inert Anodes	Australia	4/12/2002	2002338623	2002338623	Granted	Alcoa Inc.

NJ 229868373v1

59

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Electrolytic Production of High Purity Aluminum Using Ceramic Inert Anodes	Russia	4/12/2002	2003133305	2283900	Granted	Alcoa Inc.
Electrolytic Production of High Purity Aluminum Using Ceramic Inert Anodes	South Africa	4/12/2002	2003/7716	2003/7716	Granted	Alcoa Inc.
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	China	3/4/2004	200480008375.7	ZL200480008375.7	Granted	Alcoa Inc.
Mechanical Attachment of Electrical Current Conductor to Inert Anodes	US	4/2/2003	10/405,510	6,805,777	Granted	Alcoa Inc.
Methods and Apparatus for Reducing Sulfur Impurities and Improving Current Efficiencies of Inert Anode Aluminum Production Cells (X Ref 76-0049, 11-1512, 10-1256, 10-1644, 09-1775, 06-2180, 02-0337)	Australia	8/5/2002	2002332463	2002332463	Granted	Alcoa Inc.

NJ 229858373v1

60

NY 248148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Methods and Apparatus for Reducing Sulfur Impurities and Improving Current Efficiencies of Inert Anode Aluminum Production Cells (X Ref 76-0049, 11-1512, 10-1256, 10-1644, 09-1775, 06-2180, 02-0337)	Brazil	8/5/2002	PI0215834-5	PI0215834-5	Granted	Alcoa Inc.
Methods and Apparatus for Reducing Sulfur Impurities and Improving Current Efficiencies of Inert Anode Aluminum Production Cells (X Ref 76-0049, 11-1512, 10-1256, 10-1644, 09-1775, 06-2180, 02-0337)	Canada	8/5/2002	2,495,162	2,495,162	Granted	Alcoa Inc.
Methods and Apparatus for Reducing Sulfur Impurities and Improving Current Efficiencies of Inert Anode Aluminum Production Cells (X Ref 76-0049, 11-1512, 10-1256, 10-1644, 09-1775, 06-2180, 02-0337)	China	8/5/2002	2829530.7	ZL02829530.7	Granted	Alcoa Inc.

NJ 229868373v1

61

NY 246148676v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Methods and Apparatus for Reducing Sulfur Impurities and Improving Current Efficiencies of Inert Anode Aluminum Production Cells (X Ref 76-0049, 11-1512, 10-1256, 10-1644, 09-1775, 06-2180, 02-0337)	EPO	8/5/2002	2807650.3		Pending	Alcoa Inc.
Methods and Apparatus for Reducing Sulfur Impurities and Improving Current Efficiencies of Inert Anode Aluminum Production Cells (X Ref 76-0049, 11-1512, 10-1256, 10-1644, 09-1775, 06-2180, 02-0337)	Spain	8/5/2002	200550009	2292328	Granted	Alcoa Inc.
Methods and Apparatus for Reducing Sulfur Impurities and Improving Current Efficiencies of Inert Anode Aluminum Production Cells (X Ref 76-0049, 11-1512, 10-1256, 10-1644, 09-1775, 06-2180, 02-0337)	Norway	8/5/2002	20051171		Pending	Alcoa Inc.

NJ 229888373v1

62

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Methods and Apparatus for Reducing Sulfur Impurities and Improving Current Efficiencies of Inert Anode Aluminum Production Cells (X Ref 76-0049, 11-1512, 10-1256, 10-1644, 09-1775, 06-2180, 02-0337)	Russia	8/5/2002	2005106214	2299931	Granted	Alcoa Inc.
Methods and Apparatus for Reducing Sulfur Impurities and Improving Current Efficiencies of Inert Anode Aluminum Production Cells (X Ref 76-0049, 11-1512, 10-1256, 10-1644, 09-1775, 06-2180, 02-0337)	US	8/5/2002	10/212,442	6,866,766	Granted	Alcoa Inc.
Methods and Apparatus for Reducing Sulfur Impurities and Improving Current Efficiencies of Inert Anode Aluminum Production Cells (X Ref 76-0049, 11-1512, 10-1256, 10-1644, 09-1775, 06-2180, 02-0337)	South Africa	8/5/2002	2005/0980	2005/0980	Granted	Alcoa Inc.
Cermet Inert Anode Assembly Heat Radiation Shield	US	3/8/2004	10/796,521	7,282,133	Granted	Alcoa Inc.

NJ 229868373v1

63

NY 246148878v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933)	China	11/19/2004	200480034250.1	ZL200480034250.1	Granted	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933)	China	11/19/2004	201210295980.3	ZL201210295980.3	Granted	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933) (Inert Anode)	US	11/19/2003	10/716,973	7,235,161	Granted	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933) (Inert Anode)	US	6/23/2006	11/426,268	7,597,322	Granted	Alcoa Inc.
Stable Anodes Including Iron Oxide and Use of Such Anodes in Metal Production Cells (XR03-1842,10-0135,14-0933)	Venezuela	11/19/2004	2002-2004		Pending	Alcoa Inc.
Inert Electrode Assemblies and Methods of Manufacturing the Same (Inert Anode)	US	12/1/2006	11/566,080	7,799,187	Granted	Alcoa Inc.

NJ 229868373v1

64

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842,10-0135,14-0933)	United Arab Emirates	7/30/2013	141/2015		Pending	Alcoa Inc.
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842,10-0135,14-0933)	Australia	7/30/2013	2013296631		Pending	Alcoa Inc.
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842,10-0135,14-0933)	Bahrain	7/30/2013	19/2015		Pending	Alcoa Inc.
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842,10-0135,14-0933)	Brazil	7/30/2013	112015002278-2		Pending	Alcoa Inc.
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842,10-0135,14-0933)	Canada	7/30/2013	2,880,637		Pending	Alcoa Inc.
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842,10-0135,14-0933)	China	8/1/2013	201320465497.5	ZL201320465497.5	Granted	Alcoa Inc.
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842,10-0135,14-0933)	EPO	7/30/2013	13759039.4		Pending	Alcoa Inc.
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842,10-0135,14-0933)	India	7/30/2013	300/KOLNP/2015		Pending	Alcoa Inc.

NJ 229868373v1

85

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842, 10-0135, 14-0933)	Russia	7/30/2013	2015106684		Pending	Alcoa Inc.
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842, 10-0135, 14-0933)	US	7/30/2013	13/954,019	9,222,183	Granted	Alcoa Inc.
Inert Anodes with Low Voltage Drop and Methods of Making the Same (XR03-1842, 10-0135, 14-0933)	Venezuela	8/1/2013	00987-2013		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	United Arab Emirates	3/12/2014	1140/2015		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Australia	3/12/2014	2014248631		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Bahrain	3/12/2014	117/2015		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Brazil	3/12/2014	112015021941-1		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Canada	3/12/2014	2,901,615		Pending	Alcoa Inc.

NJ 229868373v1

66

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Systems and Methods of Protecting Electrolysis Cell Sidewalls (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	China	3/13/2014	201410093321		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cell Sidewalls (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	China	3/13/2014	201420115662.9	ZL201420115662.9	Granted	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	EPO	3/12/2014	14779301.2		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	India	3/12/2014	2735/KOLNP/2015		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Russia	3/12/2014	2015143603		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	US	3/12/2014	14/206,300		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cell Sidewalls (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Venezuela	3/13/2014	000316-2014		Pending	Alcoa Inc.

NJ 229868373v1

67

NY 245148970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	United Arab Emirates	3/12/2014	1147/2015		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Australia	3/12/2014	2014244488		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Bahrain	3/12/2014	118/2015		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Brazil	3/12/2014	112015022213-7		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Canada	3/12/2014	2,902,465		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	China	3/13/2014	201410224684.3		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	China	3/13/2014	201420270380.6	ZL201420270380.6	Granted	Alcoa Inc.

NJ 223868373v1

68

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	EPO	3/12/2014	14773160.8		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	India	3/12/2014	3271/KOLNP/2015		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Russia	3/12/2014	2015143601		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	US	3/12/2014	14/206,506		Pending	Alcoa Inc.
Systems and Methods of Protecting Electrolysis Cells (X Ref 10-1651, 10-1652, 10-1653, 10-1670)	Venezuela	3/13/2014	000315-2014		Pending	Alcoa Inc.
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443,12-1352)	United Arab Emirates	8/19/2013	220/2015		Pending	Alcoa Inc.
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443,12-1352)	Australia	8/19/2013	2013303221	2013303221	Granted	Alcoa Inc.

NJ 229868373v1

69

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443,12-1352)	Bahrain	8/19/2013	166/2014		Pending	Alcoa Inc.
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443,12-1352)	Brazil	8/19/2013	112015000194-7		Pending	Alcoa Inc.
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443,12-1352)	Canada	8/19/2013	2,874,252		Pending	Alcoa Inc.
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443,12-1352)	China	8/19/2013	201380037291.5		Pending	Alcoa Inc.
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443,12-1352)	EPO	8/19/2013	13829637.1		Pending	Alcoa Inc.
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443,12-1352)	India	8/19/2013	2741/KOLNP/2014		Pending	Alcoa Inc.
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443,12-1352)	Russia	8/19/2013	2015108749		Pending	Alcoa Inc.

NJ 229868373v1

70

NY 248148876v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443, 12-1352)	Saudi Arabia	8/19/2013	515360034		Pending	Alcoa Inc.
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443, 12-1352)	US	8/19/2013	13/987,650		Pending	Alcoa Inc.
Systems and Methods for Preventing Thermite Reactions in Electrolytic Cells (XRef 11-0443, 12-1352)	Venezuela	8/19/2013	01048-2013		Pending	Alcoa Inc.
Anode Assembly and Anode Apparatus Comprising Protectant Material (12-1476 w/ 14-1191, 14-0969)	US	5/20/2015	62/164,111		Pending	Alcoa Inc.
Apparatus, System, and Methods for Determining Particulate Concentration in High Temperature Liquids (X Ref 12-1126, 12-1585, 13-0308)	US	5/20/2015	62/164,117		Pending	Alcoa Inc.
Apparatuses and Systems of Vertical Electrolysis Cells and Methods for Making and Using the Same (Cell)	US	3/12/2014	14/206,771		Pending	Alcoa Inc.
Vented Anode (Anode Assembly)	US	4/10/2015	62/145,861		Pending	Alcoa Inc.

NJ 229868373v1

71

NY 245148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Insulation Assembly for Electrolysis Cell (SARBs) (Cell)	US	4/15/2015	62/147,822		Pending	Alcoa Inc.
Insulation Assembly for Electrolysis Cell (SARBs) (Cell)	US	1/26/2016	62/287,011		Pending	Alcoa Inc.
Anode Apparatus (Anode Assembly)	China	9/8/2015	201510554911.1		Pending	Alcoa Inc.
Anode Apparatus (Anode Assembly)	China	9/8/2015	201520690359.6		Pending	Alcoa Inc.
Anode Apparatus (Anode Assembly)	PCT	8/25/2015	PCT/US15/46714		Pending	Alcoa Inc.
Anode Apparatus (Anode Assembly)	US	8/25/2015	14/834,895		Pending	Alcoa Inc.
Methods of Making Titanium Diboride Powders (TiB ₂) (Cathode)	Australia	10/29/2010	2010313251	2010313251	Granted	Alcoa Inc.
Methods of Making Titanium Diboride Powders (TiB ₂) (Cathode)	Australia	2/28/2014	2014201113	2014201113	Granted	Alcoa Inc.
Methods of Making Titanium Diboride Powders (TiB ₂) (Cathode)	Brazil	10/29/2010	112012010277-0		Pending	Alcoa Inc.
Methods of Making Titanium Diboride Powders (TiB ₂) (Cathode)	Canada	10/29/2010	2,779,106		Pending	Alcoa Inc.
Methods of Making Titanium Diboride Powders (TiB ₂) (Cathode)	China	10/29/2010	201080052860.X	ZL201080052860.X	Granted	Alcoa Inc.
Methods of Making Titanium Diboride Powders (TiB ₂) (Cathode)	China	8/11/2015	201510489632.3		Pending	Alcoa Inc.

NJ 229068373v1

72

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Methods of Making Titanium Diboride Powders (TiB ₂) (Cathode)	EPO	10/29/2010	10773822.1		Pending	Alcoa Inc.
Methods of Making Titanium Diboride Powders (TiB ₂) (Cathode)	Russia	10/29/2010	2012122247	2513398	Granted	Alcoa Inc.
Methods of Making Titanium Diboride Powders (TiB ₂) (Cathode)	Russia	1/22/2014	2014101964	2572425	Granted	Alcoa Inc.
Methods of Making Titanium Diboride Powders (TiB ₂) (Cathode)	US	10/29/2010	12/916,437	8,216,536	Granted	Alcoa Inc.
Methods of Making Titanium Diboride Powders (Cathode) (TiB ₂)	US	5/6/2013	13/887,732		Pending	Alcoa Inc.
Recycle of Titanium Diboride Materials (TiB ₂) (X Ref 12-0585 & 13-0252) (Cathode)	Australia	6/5/2013	2013271660	2013271660	Granted	Alcoa Inc.
Recycle of Titanium Diboride Materials (TiB ₂) (X Ref 12-0585 & 13-0252) (Cathode)	Bahrain	6/5/2013	185/2014		Pending	Alcoa Inc.
Recycle of Titanium Diboride Materials (TiB ₂) (X Ref 12-0585 & 13-0252) (Cathode)	Brazil	6/5/2013	112014030485-8		Pending	Alcoa Inc.
Recycle of Titanium Diboride Materials (TiB ₂) (X Ref 12-0585 & 13-0252) (Cathode)	Canada	6/5/2013	2,875,661		Pending	Alcoa Inc.
Recycle of Titanium Diboride Materials (TiB ₂) (X Ref 12-0585 & 13-0252) (Cathode)	China	6/5/2013	201380036979.1		Pending	Alcoa Inc.

NJ 229868073v1

73

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Recycle of Titanium Diboride Materials (TiB ₂) (X Ref 12-0585 & 13-0252) (Cathode)	EPO	6/5/2013	13729222.3		Pending	Alcoa Inc.
Recycle of Titanium Diboride Materials (TiB ₂) (X Ref 12-0585 & 13-0252) (Cathode)	India	6/5/2013	3002/KOLNP/2014		Pending	Alcoa Inc.
Recycle of Titanium Diboride Materials (TiB ₂) (X Ref 12-0585 & 13-0252) (Cathode)	Russia	6/5/2013	2014152731		Pending	Alcoa Inc.
Recycle of Titanium Diboride Materials (X Ref 12-0585 & 13-0252) (Cathode)(TiB ₂)	US	6/5/2013	13/910,679	9,181,101	Granted	Alcoa Inc.
Recycle of Titanium Diboride Materials (X Ref 12-0585 & 13-0252) (Cathode)(TiB ₂)	US	11/4/2015	14/932,573		Pending	Alcoa Inc.
Recycle of Titanium Diboride Materials (TiB ₂) (X Ref 12-0585 & 13-0252) (Cathode)	Venezuela	6/6/2013	00683-2013		Pending	Alcoa Inc.
Scrap-Based Carbothermic Aluminum Production	Canada	1/6/2000	2,358,070	2,358,070	Granted	Alcoa Inc.
Scrap-Based Carbothermic Aluminum Production	EPO	1/6/2000	00,906,878.4	EPO 1,147,236	Granted	Alcoa Inc.
Scrap-Based Carbothermic Aluminum Production	Spain	1/6/2000	00,906,878.4	EPO 1,147,236	Granted	Alcoa Inc.
Scrap-Based Carbothermic Aluminum Production	France	1/6/2000	00,906,878.4	EPO 1,147,236	Granted	Alcoa Inc.
Scrap-Based Carbothermic Aluminum Production	United Kingdom	1/6/2000	00,906,878.4	1147236	Granted	Alcoa Inc.

NJ 229868373v1

74

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Scrap-Based Carbothermic Aluminum Production	Italy	1/6/2000	00,906,878.4	EPO 1,147,236	Granted	Alcoa Inc.
Carbothermic Aluminum Production Using Scrap Aluminum As A Coolant	US	8/27/2001	09/939,857	6,475,260	Granted	Alcoa Inc.
Method and Reactor for Production of Aluminum by Carbothermic Reduction of Alumina	US	5/21/2001	09/862,192	6,440,193	Granted	Alcoa Inc.
A Device and Method for Treatment of Gases	US	10/3/2003	10/678,339	7,169,207	Granted	Alcoa Inc.
Low Carbon Aluminum Production Method Using Single Furnace Carbothermic Reduction Operated In Batch Mode	Germany	1/4/2008	8713556.2	6.02008E+1 1	Granted	Alcoa Inc.
Low Carbon Aluminum Production Method Using Single Furnace Carbothermic Reduction Operated In Batch Mode	France	1/4/2008	8713556.2	2121995	Granted	Alcoa Inc.
Low Carbon Aluminum Production Method Using Single Furnace Carbothermic Reduction Operated In Batch Mode	Iceland	1/4/2008	8713556.2	2121995	Granted	Alcoa Inc.
Low Carbon Aluminum Production Method Using Single Furnace Carbothermic Reduction Operated In Batch Mode	Norway	1/4/2008	8713556.2	2121995	Granted	Alcoa Inc.

NJ 229068373v1

75

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Low Carbon Aluminum Production Method Using Single Furnace Carbothermic Reduction Operated In Batch Mode	Russia	1/4/2008	2009134503	2407815	Granted	Alcoa Inc.
Low Carbon Aluminum Production Method Using Single Furnace Carbothermic Reduction Operated In Batch Mode	US	2/16/2007	11/676,017	7,556,667	Granted	Alcoa Inc.
Use of Alumina-Carbon Agglomerates in the Carbothermic Production of Aluminum	Germany	6/27/2008	8781070.1	6.02008E+11	Granted	Alcoa Inc.
Use of Alumina-Carbon Agglomerates in the Carbothermic Production of Aluminum	France	6/27/2008	8781070.1	2185737	Granted	Alcoa Inc.
Use of Alumina-Carbon Agglomerates in the Carbothermic Production of Aluminum	Iceland	6/27/2008	8781070.1	2185737	Granted	Alcoa Inc.
Use of Alumina-Carbon Agglomerates in the Carbothermic Production of Aluminum	Norway	6/27/2008	8781070.1	2185737	Granted	Alcoa Inc.
Use of Alumina-Carbon Agglomerates in the Carbothermic Production of Aluminum	Russia	6/27/2008	2010104242	2473707	Granted	Alcoa Inc.

NJ 229888373v1

76

NY 248148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Use of Alumina-Carbon Agglomerates in the Carbothermic Production of Aluminum	Russia	8/13/2012	2012134555		Pending	Alcoa Inc.
Use of Alumina-Carbon Agglomerates in the Carbothermic Production of Aluminum	US	7/9/2007	11/775,112	7,753,988	Granted	Alcoa Inc.
Carbothermic Aluminum Production Apparatus, Systems and Methods	Russia	11/20/2008	2010127267	2486268	Granted	Alcoa Inc.
Carbothermic Aluminum Production Apparatus, Systems and Methods	Russia	2/13/2013	2013106316		Pending	Alcoa Inc.
Carbothermic Aluminum Production Apparatus, Systems and Methods	US	12/4/2007	11/950,300	7,704,443	Granted	Alcoa Inc.
Carbothermic Aluminum Production Apparatus, Systems and Methods	US	3/11/2010	12/722,354	7,854,783	Granted	Alcoa Inc.
Electrode Holder Assembly and Furnace Comprising Same	Canada	3/31/2009	2,756,911		Pending	Alcoa Inc.
Electrode Holder Assembly and Furnace Comprising Same	China	3/31/2009	200980158514.7	ZL200980158514.7	Granted	Alcoa Inc.
Electrode Holder Assembly and Furnace Comprising Same	Russia	3/31/2009	2011143866	2488056	Granted	Alcoa Inc.
Electrode Holder Assembly and Furnace Comprising Same	US	3/31/2009	13/259,049	8,406,268	Granted	Alcoa Inc.

NJ 229868373v1

77

24

NY 246148076v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Decarbonization Process for Carbothermically Produced Aluminum	China	11/18/2009	200980150004.5	ZL200980150004.5	Granted	Alcoa Inc.
Decarbonization Process for Carbothermically Produced Aluminum	Germany	11/18/2009	9764372	6.02009E+11	Granted	Alcoa Inc.
Decarbonization Process for Carbothermically Produced Aluminum	France	11/18/2009	9764372	2366037	Granted	Alcoa Inc.
Decarbonization Process for Carbothermically Produced Aluminum	United Kingdom	11/18/2009	9764372	2366037	Granted	Alcoa Inc.
Decarbonization Process for Carbothermically Produced Aluminum	Iceland	11/18/2009	9764372	2366037	Granted	Alcoa Inc.
Decarbonization Process for Carbothermically Produced Aluminum	Norway	11/18/2009	9764372	2366037	Granted	Alcoa Inc.
Decarbonization Process for Carbothermically Produced Aluminum	Russia	11/18/2009	2011129317	2524016	Granted	Alcoa Inc.
Sidewall and Bottom Electrode Arrangement for Electrical Smelting Reactors and Method for Feeding Such Electrodes (Carbothermic)	EPO	9/16/2008	8822554.5		Pending	Alcoa Inc.

NJ 229868373v1

78

NY 246148975v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Sidewall and Bottom Electrode Arrangement for Electrical Smelting Reactors and Method for Feeding Such Electrodes (Carbothermic)	Russia	9/16/2008	2011114978	2482199	Granted	Alcoa Inc.
Sidewall and Bottom Electrode Arrangement for Electrical Smelting Reactors and Method for Feeding Such Electrodes (Carbothermic)	US	3/4/2011	13/062,313	8,728,385	Granted	Alcoa Inc.
Process and Apparatus for Direct Chill Casting (Billets)	Australia	10/6/2009	2009302570	2009302570	Granted	Alcoa Inc.
Process and Apparatus for Direct Chill Casting (Billets)	Canada	10/6/2009	2,739,481		Pending	Alcoa Inc.
Process and Apparatus for Direct Chill Casting (Billets)	China	10/9/2009	200910211652.9		Pending	Alcoa Inc.
Process and Apparatus for Direct Chill Casting (Billets)	China	10/9/2009	200920178025.5	ZL200920178025.5	Granted	Alcoa Inc.
Process and Apparatus for Direct Chill Casting (Billets)	US	10/6/2008	12/245,951	8,056,611	Granted	Alcoa Inc.
Process and Apparatus for Direct Chill Casting (Billets)	South Africa	10/8/2009	2011/02530	2011/02530	Granted	Alcoa Inc.
Crane Wheel Puller	US	8/9/1996	08/699,598	5,871,247	Granted	Alcoa Inc.

NJ 220868373v1

79

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Method and Apparatus for Testing Material Utilizing Differential Temperature Measurements (X Ref 06-1192; 08-0960; 02-1908))(StarProbe)	Brazil	2/15/2001	PI0116893-2	PI0116893-2	Granted	Alcoa Inc.
Method and Apparatus for Testing Material Utilizing Differential Temperature Measurements (X Ref 06-1192; 08-0960; 02-1908))(StarProbe)	US	1/15/1999	09/231,141	6,220,748	Granted	Alcoa Inc.
Cathode Collector Bar (CICB)	US	10/13/1999	09/416,767	6,231,745	Granted	Alcoa Inc.
3 Component Cathode Collector Bar (CICB)	US	6/8/2000	09/590,199	6,294,067	Granted	Alcoa Inc.
Cathode Collector Bar with Spacer for Improved Heat Balance (CICB)	Australia	10/10/2000	80,049/00	766,270	Granted	Alcoa Inc.
Cathode Collector Bar with Spacer for Improved Heat Balance (CICB)	Canada	10/10/2000	2,347,858	2,347,858	Granted	Alcoa Inc.
Cathode Collector Bar with Spacer for Improved Heat Balance (CICB)	China	10/10/2000	802259.3	ZL0080225 9.3	Granted	Alcoa Inc.
Cathode Collector Bar with Spacer for Improved Heat Balance (CICB)	New Zealand	10/10/2000	511,179	511,179	Granted	Alcoa Inc.
Cathode Collector Bar with Spacer for Improved Heat Balance (CICB)	Russia	10/10/2000	2001-119,417	2239007	Granted	Alcoa Inc.

NJ 229888373v1

80

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Cathode Collector Bar with Spacer for Improved Heat Balance and Method (CICB)	US	4/10/2000	09/546,273	6,387,237	Granted	Alcoa Inc.
Cathode Collector Bar with Spacer for Improved Heat Balance (CICB)	Venezuela	4/5/2001	000,729/01		Pending	Alcoa Inc.
Cathode Collector Bar with Spacer for Improved Heat Balance (CICB)	South Africa	10/10/2000	4031/01	4031/01	Granted	Alcoa Inc.
Molten Cryolitic Bath Probe (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Argentina	9/24/2004	04 01 03482	AR045829B	Granted	Alcoa Inc.
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Australia	9/24/2004	2004313581	2004313581	Granted	Alcoa Inc.
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Brazil	9/24/2004	P10414739-1		Pending	Alcoa Inc.
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Canada	9/24/2004	2,540,278	2,540,278	Granted	Alcoa Inc.
Molten Cryolitic Bath Probe (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	China	9/24/2004	200480031626.3	ZL200480031626.3	Granted	Alcoa Inc.
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Germany	9/24/2004	4821134.6	1664701	Granted	Alcoa Inc.
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Germany	9/24/2004	12183194.5	6.02004E+11	Granted	Alcoa Inc.

NJ 229868373v1

81

NY 246140970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	France	9/24/2004	12183194.5	2533028	Granted	Alcoa Inc.
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Italy	9/24/2004	12183194.5	2533028	Granted	Alcoa Inc.
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Netherlands	9/24/2004	12183194.5	2533028	Granted	Alcoa Inc.
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	France	9/24/2004	4821134.6	1664701	Granted	Alcoa Inc.
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	India	9/24/2004	1398/CHENP/2006	250208	Granted	Alcoa Inc.
Molten Cryolitic Bath Probe (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Mozambique	9/24/2004	2006/71	2006/71	Granted	Alcoa Inc.
Molten Cryolitic Bath Probe (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Russia	9/24/2004	2006113927	2323423	Granted	Alcoa Inc.
MOLTEN CRYOLITIC BATH PROBE (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	US	9/25/2003	10/672,462	6,942,381	Granted	Alcoa Inc.
Molten Cryolitic Bath Probe (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	Venezuela	9/24/2004	1594-2004		Pending	Alcoa Inc.
Molten Cryolitic Bath Probe (X Ref 06-1192; 08-0960; 98-0732))(StarProbe)	South Africa	9/24/2004	2006/03262	2006/03262	Granted	Alcoa Inc.

NJ 229888373v1

82

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Use of Infrared Imaginig to Reduce Energy Consumption and Fluoride Consumption	US	8/21/2003	10/645,669	7,255,783	Granted	Alcoa Inc.
Closed End Slotted Carbon Anodes for Aluminum Electrolysis Cells	US	3/11/2004	10/799,036	7,179,353	Granted	Alcoa Inc.
Closed End Slotted Carbon Anodes for Aluminum Electrolysis Cells	US	2/5/2007	11/671,392	7,799,189	Granted	Alcoa Inc.
Method for Electrolytically Producing Aluminum Using Closed End Slotted Carbon Anodes	US	2/5/2007	11/671,386	7,820,027	Granted	Alcoa Inc.
Electrode Containers and Associated Methods	Australia	10/11/2007	2007312973	2007312973	Granted	Alcoa Inc.
Electrode Containers and Associated Methods	Canada	10/11/2007	2,664,280	2,664,280	Granted	Alcoa Inc.
Electrode Containers and Associated Methods	EPO	10/11/2007	7844154		Pending	Alcoa Inc.
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	Australia	6/22/2007	2007265256	2007265256	Granted	Alcoa Inc.
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	Canada	6/22/2007	2,656,092	2,656,092	Granted	Alcoa Inc.

NJ 229858373v1

83

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	China	6/22/2007	200780030354.9	ZL200780030354.9	Granted	Alcoa Inc.
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	China	6/22/2007	201210181893.5	ZL201210181893.5	Granted	Alcoa Inc.
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	Germany	6/22/2007	7812251.2	EP2044241	Granted	Alcoa Inc.
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	Spain	6/22/2007	7812251.2	EP2044241	Granted	Alcoa Inc.
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	France	6/22/2007	7812251.2	EP2044241	Granted	Alcoa Inc.
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	Iceland	6/22/2007	7812251.2	EP2044241	Granted	Alcoa Inc.

NJ 229868373v1

84

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	Italy	6/22/2007	7812251.2	EP2044241	Granted	Alcoa Inc.
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	Netherlands	6/22/2007	7812251.2	EP2044241	Granted	Alcoa Inc.
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	US	6/23/2015	14/747,871		Pending	Alcoa Inc.
Systems and Methods Useful in Controlling Operations of Metal Electrolysis Cells (X Ref 08-0960; 02-1908; 98-0732))(StarProbe)	South Africa	6/22/2007	2009/00413	2009/00413	Granted	Alcoa Inc.
Method for Improving the HF Capture Efficiency of Dry Scrubbers (IDS IP)	Australia	8/23/2007	2007286582	2007286582	Granted	Alcoa Inc.
Method for Improving the HF Capture Efficiency of Dry Scrubbers (IDS IP)	Canada	8/23/2007	2,661,752	2,661,752	Granted	Alcoa Inc.
Systems and Methods for Inspecting Anodes and Smelting Management Relating to the Same	Canada	11/19/2008	2,744,600	2,744,600	Granted	Alcoa Inc.

NL 229868373v1

85

NY 249148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Systems and Methods for Inspecting Anodes and Smelting Management Relating to the Same	US	11/27/2007	11/946,000	8,594,417	Granted	Alcoa Inc.
Systems and Methods for Restricting Scale in Gas Scrubbers and Related Components (IDS IP)	US	3/3/2009	12/397,248	7,931,737	Granted	Alcoa Inc.
Systems, Methods and Apparatus for Tapping a Metal Electrolysis Cell	US	10/15/2008	12/252,312	8,199,023	Granted	Alcoa Inc.
System, Method and Apparatus for Measuring Electrolysis Cell Operating Conditions and Communicating the Same (X Ref 06-1192; 02-1908; 98-07321)(StarProbe)	Australia	3/10/2010	2010229120	2010229120	Granted	Alcoa Inc.
System, Method and Apparatus for Measuring Electrolysis Cell Operating Conditions and Communicating the Same (X Ref 06-1192; 02-1908; 98-07321)(StarProbe)	Australia	6/5/2015	2015203272		Pending	Alcoa Inc.
System, Method and Apparatus for Measuring Electrolysis Cell Operating Conditions and Communicating the Same (X Ref 06-1192; 02-1908; 98-07321)(StarProbe)	Brazil	3/10/2010	PI1012277-0		Pending	Alcoa Inc.

NJ 229868373v1

86

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
System, Method and Apparatus for Measuring Electrolysis Cell Operating Conditions and Communicating the Same (X Ref 06-1192; 02-1908; 98-0732))(StarProbe)	Canada	3/10/2010	2,755,221		Pending	Alcoa Inc.
System, Method and Apparatus for Measuring Electrolysis Cell Operating Conditions and Communicating the Same (X Ref 06-1192; 02-1908; 98-0732))(StarProbe)	China	3/10/2010	201080013501.3		Pending	Alcoa Inc.
System, Method and Apparatus for Measuring Electrolysis Cell Operating Conditions and Communicating the Same (X Ref 06-1192; 02-1908; 98-0732))(StarProbe)	EPO	3/10/2010	10708864.3		Pending	Alcoa Inc.
System, Method and Apparatus for Measuring Electrolysis Cell Operating Conditions and Communicating the Same (X Ref 06-1192; 02-1908; 98-0732))(StarProbe)	Russia	3/10/2010	2011143139	2542869	Granted	Alcoa Inc.

NJ 229866373v1

87

NY 248148070v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
System, Method and Apparatus for Measuring Electrolysis Cell Operating Conditions and Communicating the Same (X Ref 06-1192; 02-1908; 98-0732))(StarProbe)	US	3/26/2009	12/411,639	8,409,409	Granted	Alcoa Inc.
System, Method and Apparatus for Measuring Electrolysis Cell Operating Conditions and Communicating the Same (X Ref 06-1192; 02-1908; 98-0732))(StarProbe)	US	2/22/2016	15/050,050		Pending	Alcoa Inc.
System, Method and Apparatus for Measuring Electrolysis Cell Operating Conditions and Communicating the Same (X Ref 06-1192; 02-1908; 98-0732))(StarProbe)	US	4/1/2013	13/854,231	9,267,215	Granted	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	Australia	12/17/2009	2009338699	2009338699	Granted	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	Brazil	12/17/2009	PI0924148-5		Pending	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	Canada	12/17/2009	2,750,057		Pending	Alcoa Inc.

NJ 229868373v1

88

NY 246146978v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	China	12/17/2009	200980155870.3	ZL200980155870.3	Granted	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	Germany	12/17/2009	9801876.5	6,020,095E+11	Granted	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	Spain	12/17/2009	9801876.5	EP2391746	Granted	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	France	12/17/2009	9801876.5	EP2391746	Granted	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	Iceland	12/17/2009	9801876.5	EP2391746	Granted	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	Italy	12/17/2009	9801876.5	EP2391746	Granted	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	Netherlands	12/17/2009	9801876.5	EP2391746	Granted	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	Norway	12/17/2009	9801876.5	EP2391746	Granted	Alcoa Inc.

NJ 229868373v1

89

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	Russia	12/17/2009	2011135986	2522053	Granted	Alcoa Inc.
Enhancement of Aluminum Tapping by Application of Targeted Electromagnetic Field	US	1/30/2009	12/363,248	8,075,747	Granted	Alcoa Inc.
System and Method for Measuring Alumina Qualities and Communicating the Same (X Ref 10-0920)	US	8/11/2010	12/854,612	8,088,269	Granted	Alcoa Inc.
Systems, Methods and Apparatus for Tapping Metal Electrolysis Cells	Canada	6/3/2010	2,765,520		Pending	Alcoa Inc.
Aluminum Electrolysis Cell with Compression Device and Method (X Ref 09-1714, 11-0934)	Australia	9/11/2012	2012309834	2012309834	Granted	Alcoa Inc.
Aluminum Electrolysis Cell with Compression Device and Method (X Ref 09-1714, 11-0934)	Australia	1/19/2015	2015200231		Pending	Alcoa Inc.
Aluminum Electrolysis Cell with Compression Device and Method (X Ref 09-1714, 11-0934)	Brazil	9/11/2012	112014005689-7		Pending	Alcoa Inc.
Aluminum Electrolysis Cell with Compression Device and Method (X Ref 09-1714, 11-0934)	Canada	9/11/2012	2,846,409		Pending	Alcoa Inc.

NJ 229868373v1

90

NY 246140976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Aluminum Electrolysis Cell with Compression Device and Method (X Ref 09-1714, 11-0934)	China	9/12/2012	201210473227.9	ZL201210473227.9	Granted	Alcoa Inc.
Aluminum Electrolysis Cell with Compression Device and Method (X Ref 09-1714, 11-0934)	China	9/12/2012	201220614974.5	ZL201220614974.5	Granted	Alcoa Inc.
Aluminum Electrolysis Cell with Compression Device and Method (X Ref 09-1714, 11-0934)	EPO	9/11/2012	12772572.9		Pending	Alcoa Inc.
Aluminum Electrolysis Cell with Compression Device and Method (X Ref 09-1714, 11-0934)	Russia	9/11/2012	2014114283		Pending	Alcoa Inc.
Aluminum Electrolysis Cell with Compression Device and Method (X Ref 09-1714, 11-0934)	US	9/11/2012	13/609,759	9,206,518	Granted	Alcoa Inc.
Systems and Methods for Determining Alumina Properties (X Ref 09-0059)	Australia	1/31/2012	2012212436	2012212436	Granted	Alcoa Inc.
Systems and Methods for Determining Alumina Properties (X Ref 09-0059)	Brazil	1/31/2012	112013019399-9		Pending	Alcoa Inc.
Systems and Methods for Determining Alumina Properties (X Ref 09-0059)	Canada	1/31/2012	2,824,361		Pending	Alcoa Inc.
Systems and Methods for Determining Alumina Properties (X Ref 09-0059)	China	1/31/2012	201280007079.X		Pending	Alcoa Inc.

MJ 229808373v1

91

NY 246148970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Systems and Methods for Determining Alumina Properties (X Ref 09-0059)	EPO	1/31/2012	12742047.9		Pending	Alcoa Inc.
Systems and Methods for Determining Alumina Properties (X Ref 09-0059)	India	1/31/2012	5602/CHENP/2013		Pending	Alcoa Inc.
Systems and Methods for Determining Alumina Properties (X Ref 09-0059)	Russia	1/31/2012	2013140406		Pending	Alcoa Inc.
Systems and Methods for Determining Alumina Properties (X Ref 09-0059)	US	1/31/2011	13/017,557	9,121,104	Granted	Alcoa Inc.
Current Collector Bar Apparatus, System, and Method of Using the Same	Canada	9/10/2013	2,882,837		Pending	Alcoa Inc.
Adjustable Current Collector Bar and Method of Using the Same	China	9/11/2013	201310637121.2		Pending	Alcoa Inc.
Current Collector Bar Apparatus, System, and Method of Using the Same	EPO	9/10/2013	13837115.8		Pending	Alcoa Inc.
Current Collector Bar Apparatus, System, and Method of Using the Same	US	9/10/2013	14/022,370		Pending	Alcoa Inc.
Apparatus and Method for Improving Magneto-Hydrodynamics Stability and Reducing Energy Consumption for Aluminium Reduction Cells	China	8/6/2012	201220386548	ZL201220386548.0	Granted	Alcoa Inc.

NJ 229868373v1

92

NY 246148970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Apparatus and Method for Improving Magneto-Hydrodynamics Stability and Reducing Energy Consumption for Aluminum Reduction Cells (KeyWords: Baffle, TiB2, Bottom Cell)	US	3/14/2012	13/419,990	8,795,507	Granted	Alcoa Inc.
Expandable Member and Method of Making the Same (X Ref 09-1714, 11-0934)	Brazil	9/11/2012	112014005783-4		Pending	Alcoa Inc.
Expandable Member and Method of Making the Same (X Ref 09-1714, 11-0934)	Canada	9/11/2012	2,848,309		Pending	Alcoa Inc.
Expandable Member and Method of Making the Same (X Ref 09-1714, 11-0934)	China	9/12/2012	201210506242.9	ZL201210506242.9	Granted	Alcoa Inc.
Expandable Member and Method of Making the Same (X Ref 09-1714, 11-0934)	China	9/12/2012	201220651373.1	ZL201220651373.1	Granted	Alcoa Inc.
Expandable Member and Method of Making the Same (X Ref 09-1714, 11-0934)	EPO	9/11/2012	12781494.5		Pending	Alcoa Inc.
Expandable Member and Method of Making the Same (X Ref 09-1714, 11-0934)	Russia	9/11/2012	2014114534		Pending	Alcoa Inc.
Expandable Member and Method of Making the Same (X Ref 09-1714, 11-0934)	US	9/11/2012	13/609,809		Pending	Alcoa Inc.

NJ 229868373v1

93

NY 246148978v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	Brazil	3/12/2014	BR112015020448-1		Pending	Alcoa Inc.
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	Canada	3/12/2014	2,900,961		Pending	Alcoa Inc.
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	China	3/12/2014	201480014728.8		Pending	Alcoa Inc.
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	EPO	3/12/2014	14775953.4		Pending	Alcoa Inc.
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	United Kingdom	3/12/2014	1517864.3		Pending	Alcoa Inc.
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	India	3/12/2014	3359/KOLNP/2015		Pending	Alcoa Inc.

NJ 229888373v1

94

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	Japan	3/12/2014	2016-501578		Pending	Alcoa Inc.
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	Korea (South)	3/12/2014	2015-7028391		Pending	Alcoa Inc.
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	Mexico	3/12/2014	MX/a/2015/011512		Pending	Alcoa Inc.
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	Russia	3/12/2014	2015143662		Pending	Alcoa Inc.
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)(C862F7)	US	3/14/2013	13/827,918	9,249,487	Granted	Alcoa Inc.
Aluminum Alloy with Intergranular Corrosion Resistance and Methods of Making and Use	US	8/20/2002	10/224,835	6,660,107	Granted	Alcoa Inc.

NJ 229868373v1

95

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Method for Recovering Aluminum Vapor and Aluminum Suboxide From Off-Gases During Production of Aluminum By Carbothermic Reduction of Alumina	US	5/21/2001	09/862,196	6,530,970	Granted	Alcoa Inc.
Use of Alumina-Carbon Agglomerates in the Carbothermic Production of Aluminum	US	1/7/2010	12/684,033	7,819,937	Granted	Alcoa Inc.
Decarbonization Process for Carbothermically Produced Aluminum	US	12/15/2008	12/334,687	9,068,246	Granted	Alcoa Inc.
Techniques for Transferring Holograms into Metal Surfaces	US	12/12/1997	08/991,101	5,881,444	Granted	Alcoa Inc.
Method for Coating a Metal Strip	US	5/5/1997	08/851,337	5,919,517	Granted	Alcoa Inc.
Electrode Containers and Associated Methods	US	10/11/2007	11/870,818	8,252,156	Granted	Alcoa Inc.
Systems and Methods for Stereoscopic Imaging of Aluminum Electrolysis Pot Tending Operations	Canada	9/27/2013	2,885,321		Pending	Alcoa Inc.

NJ 229668373v1

96

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-0727, 13-1326, 13-1327)(Polonius)	Australia	11/12/2014	2014348742	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (fka PATTERSON), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA, Orhan Deniz; SUNDAY, Steve; HARRISON, Ian Ross; SMITH, John; PARKS, Shannon L.I.; GERSHEN ZON, Mikhail	Pending	Alcoa Inc.
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-0727, 13-1326, 13-1327)(Polonius)	Brazil	11/12/2014	112016010573-7	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (fka PATTERSON), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA, Orhan Deniz; SUNDAY, Steve; HARRISON, Ian Ross; SMITH, John; PARKS,	Pending	Alcoa Inc.

NJ 229868373v1

97

NY 245148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
				Shannon L.I.; GERSHEN ZON, Mikhail		
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-6727, 13- 1326, 13- 1327)(Polonius)	Canada	11/12/2014	PCT/US14/65270	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (fka PATTERSO N), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA , Orhan Deniz; SUNDAY, Steve; HARRISO N, Ian Ross; SMITH, John; PARKS, Shannon L.I.; GERSHEN ZON, Mikhail	Pending	Alcoa Inc.

NJ 229568373v1

98

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-0727, 13-1326, 13-1327)(Polonius)	China	11/12/2014	113016010573-7	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (fka PATTERSON), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA, Orhan Deniz; SUNDAY, Steve; HARRISON, Ian Ross; SMITH, John; PARKS, Shannon L.L.; GERSHEN ZON, Mikhail	Pending	Alcoa Inc.
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-0727, 13-1326, 13-1327)(Polonius)	Egypt	11/12/2014	PCT 790/2016	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (fka PATTERSON), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA, Orhan Deniz; SUNDAY, Steve; HARRISON, Ian Ross; SMITH, John; PARKS,	Pending	Alcoa Inc.

NJ 229868373v1

99

NY 248148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
				Shannon L.L.; GERSHEN ZON, Mikhail		
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-0727, 13- 1326, 13- 1327)(Polonium)	EPO	11/12/2014	PCT/US14/65270	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (fka PATTERSO N), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA , Orhan Deniz; SUNDAY, Steve; HARRISO N, Ian Ross; SMITH, John; PARKS, Shaunon L.L.; GERSHEN ZON, Mikhail	Pending	Alcoa Inc.

NJ 225868373v1

100

NY 246148376v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-0727, 13-1326, 13-1327)(Polonius)	India	11/12/2014	201637016175	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (aka PATTERSON), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA, Orhan Deniz; SUNDAY, Steve; HARRISON, Ian Ross; SMITH, John; PARKS, Shannon L.L.; GERSHEN ZON, Mikhail	Pending	Alcoa Inc.
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-0727, 13-1326, 13-1327)(Polonius)	Japan	11/12/2014	PCT/US14/65270	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (aka PATTERSON), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA, Orhan Deniz; SUNDAY, Steve; HARRISON, Ian Ross; SMITH, John; PARKS,	Pending	Alcoa Inc.

NJ 229868373v1

101

NY 246148970v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
				Shannon L.I.; GERSHEN ZON, Mikhail		
Fertilizer Compositions and Methods of Making and Using the Same (X Ref. 12-0727, 13- 1326, 13- 1327)(Polonius)	Mexico	11/12/2014	MX/a/2016/006178	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (fka PATTERSO N), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA , Orhan Demir; SUNDAY, Steve; HARRISO N, Ian Ross; SMITH, John; PARKS, Shannon L.I.; GERSHEN ZON, Mikhail	Pending	Alcoa Inc.

NJ 229860373v1

102

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-0727, 13-1326, 13-1327)(Polonius)	Russia	11/12/2014	PCT/US14/65270	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (fka PATTERSON), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA, Orhan Deniz; SUNDAY, Steve; HARRISON, Ian Ross; SMITH, John; PARKS, Shannon L.L.; GERSHEN ZON, Mikhail	Pending	Alcoa Inc.
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-0727, 13-1326, 13-1327)(Polonius)	Ukraine	11/12/2014	PCT/US14/65270	WEAVER, Mark L.; CRUM, Kyle A.; NICHOLS (fka PATTERSON), Judodine; IWIG, David F.; ORKIS, Steven C.; CARKIN, Gerald E.; GENCAGA, Orhan Deniz; SUNDAY, Steve; HARRISON, Ian Ross; SMITH, John; PARKS,	Pending	Alcoa Inc.

NJ 229868373v1

103

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
				Shannon L.L.; GERSHEN ZON, Mikhail		
Fertilizer Compositions and Methods of Making and Using the Same (X Ref: 12-0727, 13-1326, 13-1327)(Polonium)	US	11/12/2014	14/539,745		Pending	Alcoa Inc.
Fertilizer Compositions and Methods of Making and Using the Same (Polonium)	US	5/13/2016	15/154,255	WEAVER, Mark L.; PAOLA, Vincent A.; CRAVENE R, John C.; RAGHUNA THAN, Narsimhan; NICHOLS (fka PATTERSON), Judodine	Pending	Alcoa Inc.
Fertilizer Compositions and Methods of Making and Using the Same (Polonium)	US	5/13/2016	15/154,167	WEAVER, Mark L.	Pending	Alcoa Inc.

NJ 229868373v1

104

NY 246148876v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Apparatuses and Systems for Vertical Electrolysis Cells (Cathode) XR: 14-0617, 14-0793, 14-1316, 15-106933	US	3/31/2015	62/140,797		Pending	Alcoa Inc.
Apparatuses and Systems for Vertical Electrolysis Cells (Cathode) XR: 14-0617, 14-0793, 14-1316, 15-106933	US	6/29/2015	62/185,902		Pending	Alcoa Inc.
Feeding System and Methods for Feeding Alumina into a Smelting Cell (Cell) XR: 14-0694, 14-0692	US	3/31/2015	62/141,048		Pending	Alcoa Inc.
Feeding System and Methods for Feeding Alumina into a Smelting Cell (Cell) XR: 14-0694, 14-0692	US	7/1/2015	62/187,411		Pending	Alcoa Inc.
Advanced Aluminum Electrolysis Cell (Cell)	US	3/28/2016	62/314,054		Pending	Alcoa Inc.
Anode Assembly (Anode Assembly)	US	4/10/2015	62/145,843		Pending	Alcoa Inc.
Aluminum Alloys, Aluminum Alloy Products and Methods for Making the Same (ColorKast)	China	1/13/2010	201080009542.5	ZL201080009542.5	Granted	Alcoa Inc.
Aluminum Alloys, Aluminum Alloy Products and Methods for Making the Same (09-1146) (ColorKast)	US	1/8/2015	14/592,297		Pending	Alcoa Inc.
Method of Manufacturing Containers (Flexible Can Making Process)	South Africa	6/26/2007	2009/00445	2009/00445	Granted	Alcoa Inc.

NJ 229868373v1

105

NY 246148976v1

Docket No.:

Title	Country	Application Date	Application Number	Patent Number	Status	Owner
Aluminum Sheet with Enhanced Formability and an Aluminum Container Made from Aluminum Sheet (Low Spread Bottlestock)	US	4/30/2015	14/701,154		Pending	Alcoa Inc.
Methods for Artificially Aging Aluminum-Zinc-Magnesium Alloys, and Products Based on the Same (Foundry alloy)	US	3/12/2014	14/206,448		Pending	Alcoa Inc.
Ceramic Body with Crack Arresting Portion (Iowa) (Cathode)	US	4/8/2016	62/319,908		Pending	Alcoa Inc.
Systems and Methods for Making Ceramic Powders and Ceramic Products	US	6/24/2016	62/353,880		Pending	Alcoa Inc.
Mandrel for Forming Inert Anodes	US	4/23/2003	10/405,509	7,323,134	Patent	Alcoa Inc.
Manufacturing Process to Produce a Necked Container (Super Necking)	Japan				Not Yet Filed	Alcoa Inc.
Shaped Metal Container and Method for Making Same (Thin Wall/Thick Wall)	China				Not Yet Filed	Alcoa Inc.
Electrode Designs and Configurations for Electrolytic Cells for Aluminum Production Using Oxygen Evolving Anodes and Aluminum Wettable Cathodes (Anode)	US				Not Yet Filed	Alcoa Inc.
Advanced Aluminum Electrolysis Cell (Cell)	US				Not Yet Filed	Alcoa Inc.

NJ 229868373v1

106

NY 248148976v1

PATENT

RECORDED: 08/24/2020

REEL: 053585 FRAME: 0484