

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)
☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Quarterly Period Ended September 30, 2019
OR
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission File Number 1-37816

ALCOA CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

201 Isabella Street, Suite 500,
Pittsburgh, Pennsylvania
(Address of principal executive offices)

81-1789115
(I.R.S. Employer
Identification No.)

15212-5858
(Zip Code)

412-315-2900
(Registrant's telephone number, including area code)
Not applicable

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.01 per share	AA	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Yes ☐ No ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of October 29, 2019, 185,572,917 shares of common stock, par value \$0.01 per share, of the registrant were outstanding.

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Forward-Looking Statements

This report contains statements that relate to future events and expectations and, as such, constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those containing such words as “anticipates,” “believes,” “could,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “outlook,” “plans,” “projects,” “seeks,” “sees,” “should,” “targets,” “will,” “would,” or other words of similar meaning. All statements by Alcoa Corporation that reflect expectations, assumptions or projections about the future, other than statements of historical fact, are forward-looking statements, including, without limitation, forecasts concerning global demand growth for bauxite, alumina, and aluminum, and supply/demand balances; statements, projections or forecasts of future financial results or operating performance; statements about strategies, outlook, and business and financial prospects; and statements about return of capital. These statements reflect beliefs and assumptions that are based on Alcoa Corporation’s perception of historical trends, current conditions, and expected future developments, as well as other factors that management believes are appropriate in the circumstances. Forward-looking statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and changes in circumstances that are difficult to predict. Although Alcoa Corporation believes that the expectations reflected in any forward-looking statements are based on reasonable assumptions, it can give no assurance that these expectations will be attained and it is possible that actual results may differ materially from those indicated by these forward-looking statements due to a variety of risks and uncertainties. Such risks and uncertainties include, but are not limited to: (a) material adverse changes in aluminum industry conditions, including global supply and demand conditions and fluctuations in London Metal Exchange-based prices and premiums, as applicable, for primary aluminum and other products, and fluctuations in indexed-based and spot prices for alumina; (b) deterioration in global economic and financial market conditions generally and which may also affect Alcoa Corporation’s ability to obtain credit or financing upon acceptable terms; (c) unfavorable changes in the markets served by Alcoa Corporation; (d) the impact of changes in foreign currency exchange and tax rates on costs and results; (e) increases in energy costs or uncertainty of energy supply; (f) declines in the discount rates used to measure pension liabilities or lower-than-expected investment returns on pension assets, or unfavorable changes in laws or regulations that govern pension plan funding; (g) the inability to achieve improvement in profitability and margins, cost savings, cash generation, revenue growth, fiscal discipline, or strengthening of competitiveness and operations anticipated from operational and productivity improvements, cash sustainability, technology advancements, and other initiatives; (h) the inability to realize expected benefits, in each case as planned and by targeted completion dates, from acquisitions, divestitures, facility closures, curtailments, restarts, expansions, or joint ventures; (i) political, economic, trade, legal, and regulatory risks in the countries in which Alcoa Corporation operates or sells products; (j) labor disputes and/or work stoppages; (k) the outcome of contingencies, including legal proceedings, government or regulatory investigations, and environmental remediation; (l) the impact of cyberattacks and potential information technology or data security breaches; and (m) the other risk factors discussed in Item 1A of Alcoa Corporation’s Form 10-K for the fiscal year ended December 31, 2018 and other reports filed by Alcoa Corporation with the U.S. Securities and Exchange Commission, including those described in this report. Alcoa Corporation disclaims any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law. Market projections are subject to the risks described above and other risks in the market.

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements.

Alcoa Corporation and Subsidiaries

Statement of Consolidated Operations (unaudited)

(in millions, except per-share amounts)

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Sales (D)	\$ 2,567	\$ 3,390	\$ 7,997	\$ 10,059
Cost of goods sold (exclusive of expenses below) (H)	2,120	2,485	6,489	7,540
Selling, general administrative, and other expenses	66	58	218	189
Research and development expenses	7	7	21	24
Provision for depreciation, depletion, and amortization	184	173	530	559
Restructuring and other charges, net (C)	185	177	668	389
Interest expense	30	33	90	91
Other expenses, net (N)	27	2	118	32
Total costs and expenses	2,619	2,935	8,134	8,824
(Loss) income before income taxes	(52)	455	(137)	1,235
Provision for income taxes	95	260	361	569
Net (loss) income	(147)	195	(498)	666
Less: Net income attributable to noncontrolling interest	74	201	324	467
NET (LOSS) INCOME ATTRIBUTABLE TO ALCOA CORPORATION	<u>\$ (221)</u>	<u>\$ (6)</u>	<u>\$ (822)</u>	<u>\$ 199</u>
EARNINGS PER SHARE ATTRIBUTABLE TO ALCOA CORPORATION COMMON SHAREHOLDERS (E):				
Basic	<u>\$ (1.19)</u>	<u>\$ (0.03)</u>	<u>\$ (4.43)</u>	<u>\$ 1.07</u>
Diluted	<u>\$ (1.19)</u>	<u>\$ (0.03)</u>	<u>\$ (4.43)</u>	<u>\$ 1.06</u>

The accompanying notes are an integral part of the consolidated financial statements.

Alcoa Corporation and Subsidiaries
Statement of Consolidated Comprehensive Income (unaudited)
(in millions)

	Alcoa Corporation		Noncontrolling interest		Total	
	Third quarter ended September 30,		Third quarter ended September 30,		Third quarter ended September 30,	
	2019	2018	2019	2018	2019	2018
Net (loss) income (H)	\$ (221)	\$ (6)	\$ 74	\$ 201	\$ (147)	\$ 195
Other comprehensive (loss) income, net of tax (F):						
Change in unrecognized net actuarial loss and prior service cost/benefit related to pension and other postretirement benefits	19	398	(6)	4	13	402
Foreign currency translation adjustments	(224)	(142)	(75)	(54)	(299)	(196)
Net change in unrecognized gains/losses on cash flow hedges	61	(29)	(3)	5	58	(24)
Total Other comprehensive (loss) income, net of tax	(144)	227	(84)	(45)	(228)	182
Comprehensive (loss) income	<u>\$ (365)</u>	<u>\$ 221</u>	<u>\$ (10)</u>	<u>\$ 156</u>	<u>\$ (375)</u>	<u>\$ 377</u>

	Alcoa Corporation		Noncontrolling interest		Total	
	Nine months ended September 30,		Nine months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018	2019	2018
Net (loss) income (H)	\$ (822)	\$ 199	\$ 324	\$ 467	\$ (498)	\$ 666
Other comprehensive (loss) income, net of tax (F):						
Change in unrecognized net actuarial loss and prior service cost/benefit related to pension and other postretirement benefits	70	682	(7)	7	63	689
Foreign currency translation adjustments	(206)	(586)	(69)	(219)	(275)	(805)
Net change in unrecognized gains/losses on cash flow hedges	(148)	346	2	(25)	(146)	321
Total Other comprehensive (loss) income, net of tax	(284)	442	(74)	(237)	(358)	205
Comprehensive (loss) income	<u>\$ (1,106)</u>	<u>\$ 641</u>	<u>\$ 250</u>	<u>\$ 230</u>	<u>\$ (856)</u>	<u>\$ 871</u>

The accompanying notes are an integral part of the consolidated financial statements.

Alcoa Corporation and Subsidiaries
Consolidated Balance Sheet (unaudited)
(in millions)

	September 30, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents (J)	\$ 841	\$ 1,113
Receivables from customers	596	830
Other receivables	228	173
Inventories (H)	1,649	1,819
Fair value of derivative instruments (J)	84	73
Prepaid expenses and other current assets (H)	245	320
Total current assets	3,643	4,328
Properties, plants, and equipment	21,456	21,807
Less: accumulated depreciation, depletion, and amortization	13,527	13,480
Properties, plants, and equipment, net	7,929	8,327
Investments (G & M)	1,114	1,360
Deferred income taxes	560	560
Fair value of derivative instruments (J)	47	82
Other noncurrent assets	1,377	1,475
Total assets	\$ 14,670	\$ 16,132
LIABILITIES		
Current liabilities:		
Accounts payable, trade	\$ 1,418	\$ 1,663
Accrued compensation and retirement costs	404	400
Taxes, including income taxes	81	426
Fair value of derivative instruments (J)	67	82
Other current liabilities	484	347
Long-term debt due within one year (J)	1	1
Total current liabilities	2,455	2,919
Long-term debt, less amount due within one year (J)	1,805	1,801
Accrued pension benefits (I)	1,389	1,407
Accrued other postretirement benefits (I)	820	868
Asset retirement obligations	491	529
Environmental remediation (M)	238	236
Fair value of derivative instruments (J)	425	261
Noncurrent income taxes	299	301
Other noncurrent liabilities and deferred credits	338	222
Total liabilities	8,260	8,544
CONTINGENCIES AND COMMITMENTS (M)		
EQUITY		
Alcoa Corporation shareholders' equity:		
Common stock	2	2
Additional capital	9,638	9,611
Retained (deficit) earnings (H)	(252)	570
Accumulated other comprehensive loss (F)	(4,849)	(4,565)
Total Alcoa Corporation shareholders' equity	4,539	5,618
Noncontrolling interest (H)	1,871	1,970
Total equity	6,410	7,588
Total liabilities and equity	\$ 14,670	\$ 16,132

The accompanying notes are an integral part of the consolidated financial statements.

Alcoa Corporation and Subsidiaries
Statement of Consolidated Cash Flows (unaudited)
(in millions)

	Nine Months Ended September 30,	
	2019	2018
CASH FROM OPERATIONS		
Net (loss) income (H)	\$ (498)	\$ 666
Adjustments to reconcile net (loss) income to cash from operations:		
Depreciation, depletion, and amortization	530	559
Deferred income taxes (H)	59	(16)
Equity earnings, net of dividends	12	(11)
Restructuring and other charges, net (C)	668	389
Net gain from investing activities – asset sales (N)	(6)	—
Net periodic pension benefit cost (I)	90	115
Stock-based compensation	29	29
Provision for bad debt expense	21	—
Other	19	(64)
Changes in assets and liabilities, excluding effects of divestitures and foreign currency translation adjustments:		
Decrease (Increase) in receivables	127	(209)
Decrease (Increase) in inventories (H)	111	(286)
Decrease in prepaid expenses and other current assets	70	3
(Decrease) in accounts payable, trade	(199)	(135)
(Decrease) in accrued expenses	(147)	(288)
(Decrease) Increase in taxes, including income taxes	(344)	248
Pension contributions (I)	(67)	(940)
(Increase) in noncurrent assets	(24)	(89)
(Decrease) in noncurrent liabilities	(27)	(58)
CASH PROVIDED FROM (USED FOR) OPERATIONS	424	(87)
FINANCING ACTIVITIES		
Additions to debt (original maturities greater than three months)	—	553
Payments on debt (original maturities greater than three months)	—	(105)
Proceeds from the exercise of employee stock options	2	23
Contributions from noncontrolling interest	41	109
Distributions to noncontrolling interest	(388)	(566)
Other	(6)	(8)
CASH (USED FOR) PROVIDED FROM FINANCING ACTIVITIES	(351)	6
INVESTING ACTIVITIES		
Capital expenditures	(245)	(251)
Proceeds from the sale of assets	23	—
Additions to investments	(112)	(6)
CASH USED FOR INVESTING ACTIVITIES	(334)	(257)
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS AND RESTRICTED CASH	(11)	(1)
Net change in cash and cash equivalents and restricted cash	(272)	(339)
Cash and cash equivalents and restricted cash at beginning of year	1,116	1,365
CASH AND CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD	\$ 844	\$ 1,026

The accompanying notes are an integral part of the consolidated financial statements.

Alcoa Corporation and Subsidiaries
Statement of Changes in Consolidated Equity (unaudited)
(in millions)

	Alcoa Corporation shareholders					
	Common stock	Additional capital	Retained earnings (deficit)	Accumulated other comprehensive loss	Non-controlling interest	Total equity
Third quarter ended September 30, 2018						
Balance at June 30, 2018	\$ 2	\$ 9,650	\$ 524	\$ (4,967)	\$ 2,036	\$ 7,245
Net (loss) income	—	—	(6)	—	201	195
Other comprehensive income (loss) (F)	—	—	—	227	(45)	182
Stock-based compensation	—	9	—	—	—	9
Common stock issued: compensation plans	—	1	—	—	—	1
Distributions	—	—	—	—	(181)	(181)
Other	—	(4)	—	—	15	11
Balance at September 30, 2018	<u>\$ 2</u>	<u>\$ 9,656</u>	<u>\$ 518</u>	<u>\$ (4,740)</u>	<u>\$ 2,026</u>	<u>\$ 7,462</u>
Third quarter ended September 30, 2019						
Balance at June 30, 2019	\$ 2	\$ 9,629	\$ (31)	\$ (4,705)	\$ 1,964	\$ 6,859
Net (loss) income	—	—	(221)	—	74	(147)
Other comprehensive loss (F)	—	—	—	(144)	(84)	(228)
Stock-based compensation	—	8	—	—	—	8
Common stock issued: compensation plans	—	1	—	—	—	1
Contributions	—	—	—	—	20	20
Distributions	—	—	—	—	(102)	(102)
Other	—	—	—	—	(1)	(1)
Balance at September 30, 2019	<u>\$ 2</u>	<u>\$ 9,638</u>	<u>\$ (252)</u>	<u>\$ (4,849)</u>	<u>\$ 1,871</u>	<u>\$ 6,410</u>
Nine months ended September 30, 2018						
Balance at December 31, 2017	\$ 2	\$ 9,590	\$ 318	\$ (5,182)	\$ 2,240	\$ 6,968
Net income	—	—	199	—	467	666
Other comprehensive income (loss) (F)	—	—	—	442	(237)	205
Stock-based compensation	—	29	—	—	—	29
Common stock issued: compensation plans	—	23	—	—	—	23
Contributions	—	—	—	—	109	109
Distributions	—	—	—	—	(566)	(566)
Other	—	14	1	—	13	28
Balance at September 30, 2018	<u>\$ 2</u>	<u>\$ 9,656</u>	<u>\$ 518</u>	<u>\$ (4,740)</u>	<u>\$ 2,026</u>	<u>\$ 7,462</u>
Nine months ended September 30, 2019						
Balance at December 31, 2018	\$ 2	\$ 9,611	\$ 570	\$ (4,565)	\$ 1,970	\$ 7,588
Net (loss) income	—	—	(822)	—	324	(498)
Other comprehensive loss (F)	—	—	—	(284)	(74)	(358)
Stock-based compensation	—	29	—	—	—	29
Common stock issued: compensation plans	—	2	—	—	—	2
Contributions	—	—	—	—	41	41
Distributions	—	—	—	—	(388)	(388)
Other	—	(4)	—	—	(2)	(6)
Balance at September 30, 2019	<u>\$ 2</u>	<u>\$ 9,638</u>	<u>\$ (252)</u>	<u>\$ (4,849)</u>	<u>\$ 1,871</u>	<u>\$ 6,410</u>

The accompanying notes are an integral part of the consolidated financial statements.

Alcoa Corporation and Subsidiaries
Notes to the Consolidated Financial Statements (unaudited)
(dollars in millions, except per-share amounts; metric tons in thousands (kmt))

A. Basis of Presentation – The interim Consolidated Financial Statements of Alcoa Corporation and its subsidiaries (Alcoa Corporation or the Company) are unaudited. These Consolidated Financial Statements include all adjustments, consisting only of normal recurring adjustments, considered necessary by management to fairly state the Company's results of operations, financial position, and cash flows. The results reported in these Consolidated Financial Statements are not necessarily indicative of the results that may be expected for the entire year. The 2018 year-end balance sheet data was derived from audited financial statements but does not include all disclosures required by accounting principles generally accepted in the United States of America (GAAP). This Quarterly Report on Form 10-Q should be read in conjunction with the Company's Annual Report on Form 10-K for the year ended December 31, 2018, which includes all disclosures required by GAAP.

References in these Notes to ParentCo refer to Alcoa Inc., a Pennsylvania corporation, and its consolidated subsidiaries through October 31, 2016, at which time it was renamed Arconic Inc. (Arconic). On November 1, 2016 (the Separation Date), ParentCo separated into two standalone, publicly-traded companies, Alcoa Corporation and Arconic (the Separation Transaction). In connection with the Separation Transaction, as of October 31, 2016, the Company and Arconic entered into several agreements to effect the Separation Transaction, including a Separation and Distribution Agreement and a Tax Matters Agreement. See Note A to the Consolidated Financial Statements in Part II Item 8 of Alcoa Corporation's Annual Report on Form 10-K for the year ended December 31, 2018 for additional information.

As of January 1, 2019, the Company changed its accounting method for valuing certain inventories from last-in, first-out (LIFO) to average cost. The effects of the change in accounting principle have been retrospectively applied to all prior periods presented. See Note H for more information regarding the change in inventory accounting method.

Principles of Consolidation. The Consolidated Financial Statements of Alcoa Corporation include the accounts of Alcoa Corporation and companies in which Alcoa Corporation has a controlling interest, including those that comprise the Alcoa World Alumina & Chemicals (AWAC) joint venture (see below). Intercompany transactions have been eliminated. The equity method of accounting is used for investments in affiliates and other joint ventures over which Alcoa Corporation has significant influence but does not have effective control. Investments in affiliates in which Alcoa Corporation cannot exercise significant influence are accounted for on the cost method.

AWAC is an unincorporated global joint venture between Alcoa Corporation and Alumina Limited and consists of several affiliated operating entities, which own, or have an interest in, or operate the bauxite mines and alumina refineries within Alcoa Corporation's Bauxite and Alumina segments (except for the Poços de Caldas mine and refinery and a portion of the São Luís refinery, all in Brazil) and the Portland smelter in Australia within Alcoa Corporation's Aluminum segment. Alcoa Corporation owns 60% and Alumina Limited owns 40% of these individual entities, which are consolidated by the Company for financial reporting purposes and include Alcoa of Australia Limited, Alcoa World Alumina LLC (AWA), and Alcoa World Alumina Brasil Ltda. (AWAB). Alumina Limited's interest in the equity of such entities is reflected as Noncontrolling interest on the accompanying Consolidated Balance Sheet.

B. Recently Adopted and Recently Issued Accounting Guidance

Adopted

On January 1, 2019 Alcoa Corporation adopted Accounting Standards Update (ASU) No. 2016-02, Leases, issued by the Financial Accounting Standards Board (FASB) regarding the accounting for leases, using the modified retrospective approach. This ASU requires lessees to recognize a right-of-use asset and lease liability on the balance sheet for operating and finance leases with a term of 12 months or more. Additionally, when measuring assets and liabilities arising from a lease, optional payments should be included only if the lessee is reasonably certain to exercise an option to extend the lease, exercise a purchase option, or not exercise an option to terminate the lease. A right-of-use asset represents an entity's right to use the underlying asset for the lease term, and a lease liability represents an entity's obligation to make lease payments. The Company has made a policy election not to record any non-lease components in the lease liability. Previously, an asset and liability were only recorded for leases classified as capital leases (financing leases). The measurement, recognition, and presentation of expenses and cash flows arising from leases by a lessee remains the same. Management elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed carry forward of historical lease classifications. Additionally, in July 2018, the FASB issued ASU No. 2018-11, Targeted Improvements, to provide for an alternative transition method to the new lease guidance, whereby an entity can choose to not reflect the impact of the new lease guidance in the prior periods included in its financial statements. The Company elected this alternative transition method upon adoption on January 1, 2019. Management also elected the practical expedient related to land easements, allowing the Company to carry forward the current treatment on existing arrangements.

As a result of the adoption, management recorded a right-of-use asset and lease liability, each in the amount of \$201, on Alcoa Corporation's Consolidated Balance Sheet as of January 1, 2019 for several types of operating leases, including land and buildings, alumina refinery process control technology, plant equipment, vehicles, and computer equipment. See Note L for additional information related to the adoption of this standard.

Alcoa Corporation's adoption of the following accounting guidance in 2019 did not have a material impact on the Company's Consolidated Financial Statements:

Accounting Standards Update

2018-01	Leases: Land Easement Practical Expedient for Transition
2018-02	Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income
2018-07	Stock Compensation: Improvements to Nonemployee Share-Based Payment Accounting

Issued

In August 2018, the FASB issued ASU No. 2018-14, Compensation - Retirement Benefits - Defined Benefit Plans - General. This ASU makes changes to the disclosures of fair value measurements and defined benefit plans through several removals, modifications, additions, and/or clarifications of the existing requirements. Certain disclosures associated with accumulated other comprehensive income, valuation of Level 3 assets, and sensitivities in assumed health care trend rates and interest rates have been eliminated. New disclosures have been added to explain significant gains and losses related to changes in benefit obligations, changes included in other comprehensive income for recurring Level 3 fair value measurements, and information on significant unobservable inputs used to develop Level 3 fair value measurements. These changes become effective for Alcoa Corporation for its fiscal year ending December 31, 2020 and for interim periods therein with early adoption permitted and retrospective presentation for all periods presented required. Other than updating the applicable disclosures, the adoption of this guidance will not have an impact on the Company's Consolidated Financial Statements.

In August 2018, the FASB issued ASU No. 2018-15, Intangibles - Goodwill and Other - Internal-Use Software. This ASU aligns the accounting for cloud computing implementation costs with that of costs to develop or obtain internal-use software, meaning such costs that are part of the application development stage are capitalized as an asset and amortized over the term of the arrangement, otherwise, such costs are expensed as incurred. It also clarifies the classification of amounts related to capitalized implementation costs in the financial statements. This guidance becomes effective for Alcoa Corporation on January 1, 2020, with early adoption permitted. Management has completed our assessment of the impact related to this guidance and concluded that the adoption of this guidance will not have a material impact on the Company's Consolidated Financial Statements.

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses. This ASU added a new impairment model (known as the current expected credit loss (CECL) model) that is based on expected losses rather than incurred losses. Under the new guidance, an entity recognizes an allowance for its estimate of expected credit losses and applies to most debt instruments, trade receivables, lease receivables, financial guarantee contracts, and other loan commitments. The CECL model does not have a minimum threshold for recognition of impairment losses and entities will need to measure expected credit losses on assets that have a low risk of loss. These changes become effective for Alcoa Corporation on January 1, 2020. Management is finalizing our assessment of the impact of these changes on the Company's Consolidated Financial Statements but does not expect a material impact from the adoption of this guidance, as our current loss models incorporate both historic and forward-looking information.

C. Restructuring and Other Charges, Net – In the third quarter and nine-month period of 2019, Alcoa Corporation recorded Restructuring and other charges, net, of \$185 and \$668, respectively, which were comprised of the following components: \$134 and \$242, respectively, for exit costs related to the smelter curtailment and subsequent divestiture of the Avilés and La Coruña facilities in Spain (see below); \$37 (both periods) for employee termination and severance costs related to the implementation of the new operating model (see below); \$5 (both periods) related to settlements of certain pension benefits (Note I); \$38 (nine-month period only) related to the curtailment of certain pension benefits (see Note I); \$319 (nine-month period only) related to the divestiture of Alcoa Corporation's interest in the Ma'aden Rolling Company (MRC) (see below); \$1 and \$9, respectively, for closure costs related to a coal mine; and \$8 and \$18, respectively, for net charges related to various other items.

In September 2019, Alcoa Corporation announced the implementation of a new operating model that will result in a leaner, more integrated, operator-centric organization. Effective November 1, 2019, the new operating model eliminates the business unit structure, consolidates sales, procurement and other commercial capabilities at an enterprise level, and streamlines the Executive Team from 12 to seven direct reports to the Chief Executive Officer. The new structure will reduce overhead with the intention of promoting operational and commercial excellence, and increasing connectivity between the Company's plants and leadership. As a result of the

new operating model, Alcoa Corporation recorded a charge of \$37 related to employee termination and severance costs for approximately 260 employees company-wide. The restructuring actions are anticipated to be complete by the end of the first quarter 2020, with cash outlays estimated through March 31, 2020.

In January 2019, Alcoa Corporation reached an agreement with the workers' representatives at the Avilés and La Coruña (Spain) aluminum facilities as part of the collective dismissal process announced in October 2018 and curtailed the smelters at these two locations, with a combined remaining operating capacity of 124 kmt, in February 2019. As part of the agreement, the Company agreed to conduct a sale process to identify third parties with interest in acquiring the facilities and to maintain the smelters in restart condition up to June 30, 2019. Through the sale process, PARTER Capital Group AG (PARTER), a private equity investment firm, was identified as a potential buyer for both of the Spanish facilities, inclusive of the smelters and casthouses at both facilities and the paste plant at La Coruña. Prior to the June 30, 2019 deadline, Alcoa Corporation agreed with the workers' representatives to extend the timeline for the potential buyer to meet the financial conditions of a draft share purchase agreement by one week. On July 5, 2019, Alcoa Corporation signed a conditional share purchase agreement with PARTER for the purchase of these two facilities, which was subject to PARTER meeting certain financial conditions prior to July 31, 2019 to support the facilities future operations. Prior to signing the conditional share purchase agreement with PARTER, Alcoa Corporation reached agreement with the workers' representatives related to the potential transaction. If PARTER was not able to meet the financial conditions prior to July 31, 2019, the Company would have proceeded with the collective dismissal and social plan as of August 1, 2019.

As of July 31, 2019, PARTER met the financial conditions and the transaction has closed. Alcoa Corporation recorded Restructuring and other charges, net, of \$134 in the third quarter of 2019 resulting from financial contributions of up to \$95 to PARTER per the agreement and a charge of \$39 to meet a working capital commitment and write-off the remaining net book value of the plants' assets. Cash outflows at the close of the transaction were \$37 with the remaining financial contributions of \$80 to be paid in quarterly installments through the second quarter of 2021.

Restructuring charges recorded in the first quarter of 2019 related to the collective dismissal process included asset impairments of \$80, employee-related costs of \$15 and contract termination costs of \$8. Additional charges recorded in the first quarter included a \$15 write down of remaining inventories to their net realizable value, which was recorded in Cost of goods sold, and \$2 in miscellaneous charges recorded in Selling, general administrative, and other expenses on the accompanying Statement of Consolidated Operations. Restructuring charges recorded in the second quarter of 2019 related to this process are comprised of severance costs of \$3 and other employee-related costs of \$2.

In December 2009, Alcoa Corporation invested in a joint venture related to the ownership and operation of an integrated aluminum complex (bauxite mine, alumina refinery, aluminum smelter, and rolling mill) in the Kingdom of Saudi Arabia. The joint venture is owned 74.9% by the Saudi Arabian Mining Company (known as Ma'aden) and 25.1% by Alcoa Corporation, and originally consisted of three separate companies as follows: the Ma'aden Bauxite and Alumina Company (MBAC; the bauxite mine and alumina refinery), the Ma'aden Aluminium Company (MAC; the aluminum smelter and casthouse), and MRC (the rolling mill). Alcoa Corporation accounts for its investment in the joint venture under the equity method as one integrated investment asset, consistent with the terms of the joint venture agreement.

In the second quarter of 2019, Alcoa Corporation and Ma'aden amended the joint venture agreement that governs the operations of each of the three companies that comprise the joint venture. Under the terms of the amended agreement:

- Alcoa Corporation made a contribution to MRC in the amount of \$100, along with Ma'aden's earlier capital contribution of \$100, to meet current MRC cash requirements, including paying certain amounts owed by MRC to MAC and Alcoa Corporation;
- Alcoa Corporation and Ma'aden consented to the write-off of \$235 of MRC's delinquent payables to MAC;
- Alcoa Corporation transferred its 25.1% interest in MRC to Ma'aden and, as a result, has no further direct or indirect equity interest in MRC;
- Alcoa Corporation is released from all future MRC obligations, including Alcoa Corporation's sponsor support of \$296 of MRC debt (see Note M) and its share of any future MRC cash requirements; and,
- Alcoa Corporation and Ma'aden further defined MBAC and MAC shareholder rights, including the timing and determination of the amount of dividend payments of excess cash to the joint venture partners following required distributions to the commercial lenders of MBAC and MAC; among other matters.

The amendment also defines October 1, 2021 as the date after which Alcoa Corporation is permitted to sell all of its shares in both MBAC and MAC collectively, for which Ma'aden has a right of first refusal. The agreement further outlines that Alcoa Corporation's call option and Ma'aden's put option, relating to additional interests in the joint venture, are exercisable for a period of six-months after October 1, 2021.

The parties will maintain their commercial relationship, which includes Alcoa Corporation providing sales, logistics and customer technical services support for MRC products for the North American can sheet market. The Company will retain its 25.1% minority interest in MBAC and MAC, and Ma'aden will continue to own a 74.9% interest. As of September 30, 2019 and December 31, 2018, the carrying value of Alcoa Corporation's investment in this joint venture was \$615 and \$874, respectively.

The \$319 restructuring charge resulting from the MRC divestiture includes the write-off of Alcoa Corporation's investment in MRC of \$161, the cash contributions described above of \$100, and the write-off of Alcoa Corporation's share of MRC's delinquent payables due to MAC of \$59 that were forgiven as part of this transaction, which were partially offset by a gain of \$1 resulting from the write-off of the fair value of debt guarantee.

In the third quarter and nine-month period of 2018, Alcoa Corporation recorded Restructuring and other charges, net of \$177 and \$389, respectively, which were comprised of the following components: \$174 and \$318, respectively, related to settlements and/or curtailments of certain pension and other postretirement employee benefits; \$2 and \$86, respectively, for costs related to the energy supply agreement at the curtailed Wenatchee (Washington) smelter, including \$73 (nine-month period only) associated with management's decision not to restart the fully curtailed Wenatchee smelter within the term provided in the energy supply agreement; a \$15 net benefit (nine-month period only) for settlement of matters related to the Portovesme (Italy) smelter; and a \$1 net charge (third quarter only) for miscellaneous items.

Alcoa Corporation does not include Restructuring and other charges, net in the results of its reportable segments. The impact of allocating such charges to segment results would have been as follows:

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Bauxite	\$ 5	\$ 1	\$ 5	\$ 1
Alumina	15	1	16	3
Aluminum	147	2	607	86
Segment total	167	4	628	90
Corporate	18	173	40	299
Total Restructuring and other charges, net	\$ 185	\$ 177	\$ 668	\$ 389

The activity related to layoff costs and other costs included within the restructuring reserve balances is as follows:

	Layoff costs	Other costs	Total
Balance at December 31, 2017	\$ 11	\$ 34	\$ 45
Restructuring and other charges, net	2	117	119
Cash payments	(7)	(95)	(102)
Other ⁽¹⁾	(1)	(14)	(15)
Balance at December 31, 2018	5	42	47
Restructuring and other charges, net	52	160	212
Cash payments	(9)	(84)	(93)
Other ⁽¹⁾	(6)	(5)	(11)
Balance at September 30, 2019	\$ 42	\$ 113	\$ 155

- (1) Other includes reversals of previously recorded restructuring charges, the effects of foreign currency translation, and reclassifications to other reserves, primarily asset retirement obligations, environmental remediation obligations and pension and/or other postretirement benefit costs.

The noncurrent portion of the reserve at September 30, 2019 was \$19, of which \$18 relates to financial contributions to PARTER.

D. Segment Information – The operating results of Alcoa Corporation’s reportable segments were as follows (differences between segment totals and consolidated amounts are in Corporate):

	Bauxite	Alumina	Aluminum	Total
Third quarter ended September 30, 2019				
Sales:				
Third-party sales	\$ 100	\$ 771	\$ 1,677	\$ 2,548
Intersegment sales	251	369	4	624
Total sales	\$ 351	\$ 1,140	\$ 1,681	\$ 3,172
Segment Adjusted EBITDA	\$ 134	\$ 223	\$ 43	\$ 400
Supplemental information:				
Depreciation, depletion, and amortization	\$ 35	\$ 54	\$ 88	\$ 177
Equity loss	\$ —	\$ —	\$ (5)	\$ (5)
Third quarter ended September 30, 2018				
Sales:				
Third-party sales	\$ 67	\$ 1,101	\$ 2,198	\$ 3,366
Intersegment sales	224	544	6	774
Total sales	\$ 291	\$ 1,645	\$ 2,204	\$ 4,140
Segment Adjusted EBITDA	\$ 106	\$ 660	\$ 84	\$ 850
Supplemental information:				
Depreciation, depletion, and amortization	\$ 27	\$ 48	\$ 91	\$ 166
Equity income (loss)	\$ —	\$ 10	\$ (5)	\$ 5
Nine months ended September 30, 2019				
Sales:				
Third-party sales	\$ 232	\$ 2,532	\$ 5,169	\$ 7,933
Intersegment sales	733	1,231	11	1,975
Total sales	\$ 965	\$ 3,763	\$ 5,180	\$ 9,908
Segment Adjusted EBITDA	\$ 372	\$ 964	\$ (50)	\$ 1,286
Supplemental information:				
Depreciation, depletion, and amortization	\$ 90	\$ 157	\$ 262	\$ 509
Equity income (loss)	—	15	(44)	(29)
Nine months ended September 30, 2018				
Sales:				
Third-party sales	\$ 191	\$ 3,083	\$ 6,722	\$ 9,996
Intersegment sales	699	1,534	14	2,247
Total sales	\$ 890	\$ 4,617	\$ 6,736	\$ 12,243
Segment Adjusted EBITDA	\$ 316	\$ 1,690	\$ 501	\$ 2,507
Supplemental information:				
Depreciation, depletion, and amortization	\$ 83	\$ 150	\$ 305	\$ 538
Equity income (loss)	—	23	(13)	10

The following table reconciles total Segment Adjusted EBITDA to consolidated net (loss) income attributable to Alcoa Corporation:

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Total Segment Adjusted EBITDA ⁽¹⁾	\$ 400	\$ 850	\$ 1,286	\$ 2,507
Unallocated amounts:				
Transformation ⁽²⁾	(6)	1	(1)	(2)
Intersegment eliminations ^{(1),(3)}	25	21	110	(55)
Corporate expenses ⁽⁴⁾	(27)	(22)	(79)	(75)
Provision for depreciation, depletion, and amortization	(184)	(173)	(530)	(559)
Restructuring and other charges, net (C)	(185)	(177)	(668)	(389)
Interest expense	(30)	(33)	(90)	(91)
Other expenses, net (N)	(27)	(2)	(118)	(32)
Other ⁽⁵⁾	(18)	(10)	(47)	(69)
Consolidated (loss) income before income taxes	(52)	455	(137)	1,235
Provision for income taxes	(95)	(260)	(361)	(569)
Net income attributable to noncontrolling interest	(74)	(201)	(324)	(467)
Consolidated net (loss) income attributable to Alcoa Corporation	\$ (221)	\$ (6)	\$ (822)	\$ 199

- (1) As of January 1, 2019, the Company changed its accounting method for valuing certain inventories from LIFO to average cost. The effects of the change in accounting principle have been retrospectively applied to all prior periods presented. As a result, in the third quarter and nine-month period of 2018, Total Segment Adjusted EBITDA increased \$11 and \$44, respectively, and Intersegment eliminations increased \$38 and decreased \$37, respectively.
- (2) Transformation includes, among other items, the Adjusted EBITDA of previously closed operations.
- (3) Concurrent with the change in inventory accounting method as of January 1, 2019, management elected to change the presentation of certain line items in the reconciliation of total Segment Adjusted EBITDA to Consolidated net (loss) income attributable to Alcoa Corporation. Corporate inventory accounting previously included the impact of LIFO, metal price lag and intersegment eliminations. The impact of LIFO has been eliminated with the change in inventory method. Metal price lag attributable to the Company's rolled operations business is now netted within the Aluminum segment to simplify presentation of an impact that nets to zero in consolidation. Only intersegment eliminations remain as a reconciling line item and are labeled as such.
- (4) Corporate expenses are composed of general administrative and other expenses of operating the corporate headquarters and other global administrative facilities, as well as research and development expenses of the corporate technical center.
- (5) Other includes certain items that impact Cost of goods sold and Selling, general administrative, and other expenses on Alcoa Corporation's Statement of Consolidated Operations that are not included in the Adjusted EBITDA of the reportable segments.

The following table details Alcoa Corporation's Sales by product division:

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Primary aluminum	\$ 1,341	\$ 1,658	\$ 4,117	\$ 5,176
Alumina	770	1,098	2,529	3,079
Flat-rolled aluminum	294	472	933	1,417
Energy	71	115	225	261
Bauxite	95	63	216	179
Other ⁽¹⁾	(4)	(16)	(23)	(53)
	\$ 2,567	\$ 3,390	\$ 7,997	\$ 10,059

- (1) Other includes realized gains and losses related to embedded derivative instruments designated as cash flow hedges of forward sales of aluminum.

E. Earnings Per Share – Basic earnings per share (EPS) amounts are computed by dividing earnings by the average number of common shares outstanding. Diluted EPS amounts assume the issuance of common stock for all potentially dilutive share equivalents outstanding.

The information used to compute basic and diluted EPS attributable to Alcoa Corporation common shareholders was as follows (shares in millions):

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Net (loss) income attributable to Alcoa Corporation	\$ (221)	\$ (6)	\$ (822)	\$ 199
Average shares outstanding – basic	186	186	185	186
Effect of dilutive securities:				
Stock options	—	—	—	1
Stock units	—	—	—	2
Average shares outstanding – diluted	186	186	185	189

In the third quarter and nine-month period of 2019, basic average shares outstanding and diluted average shares outstanding were the same because the effect of potential shares of common stock was anti-dilutive since Alcoa Corporation generated a net loss. As a result, five million stock units and stock options combined were not included in the computation of diluted EPS for both the third quarter and nine-month period of 2019. Had Alcoa Corporation generated net income in the third quarter or nine-month period of 2019, one million common share equivalents related to stock units and stock options combined would have been included in diluted average shares outstanding for the respective periods.

In the third quarter of 2018, basic average shares outstanding and diluted average shares outstanding were the same because the effect of potential shares of common stock was anti-dilutive since Alcoa Corporation generated a net loss. As a result, four million stock awards and stock options combined were not included in the computation of diluted EPS. Had Alcoa Corporation generated net income in the third quarter of 2018, two million potential shares of common stock related to stock awards and stock options combined would have been included in diluted average shares outstanding.

F. Accumulated Other Comprehensive Loss

The following table details the activity of the three components that comprise Accumulated other comprehensive loss for both Alcoa Corporation's shareholders and Noncontrolling interest:

	Alcoa Corporation		Noncontrolling interest	
	Third quarter ended September 30,		Third Quarter Ended September 30,	
	2019	2018	2019	2018
Pension and other postretirement benefits (I)				
Balance at beginning of period	\$ (2,232)	\$ (2,502)	\$ (47)	\$ (44)
Other comprehensive income:				
Unrecognized net actuarial (loss) gain and prior service cost/benefit	(38)	174	(11)	4
Tax benefit (expense)	11	(1)	4	(1)
Total Other comprehensive (loss) income before reclassifications, net of tax	(27)	173	(7)	3
Amortization of net actuarial loss and prior service cost/benefit(1)	49	227	2	1
Tax expense(2)	(3)	(2)	(1)	—
Total amount reclassified from Accumulated other comprehensive loss, net of tax(7)	46	225	1	1
Total Other comprehensive income (loss)	19	398	(6)	4
Balance at end of period	(2,213)	(2,104)	(53)	(40)
Foreign currency translation				
Balance at beginning of period	(2,053)	(1,911)	(804)	(746)
Other comprehensive loss(3)	(224)	(142)	(75)	(54)
Balance at end of period	(2,277)	(2,053)	(879)	(800)
Cash flow hedges (J)				
Balance at beginning of period	(420)	(554)	36	21
Other comprehensive income (loss):				
Net change from periodic revaluations	60	(60)	2	12
Tax (expense) benefit	(15)	10	(1)	(4)
Total Other comprehensive income (loss) before reclassifications, net of tax	45	(50)	1	8
Net amount reclassified to earnings:				
Aluminum contracts(4)	9	26	—	—
Financial contracts(5)	(4)	(6)	(6)	(4)
Interest rate contracts(6)	4	—	—	—
Foreign exchange contracts(4)	4	3	—	—
Sub-total	13	23	(6)	(4)
Tax benefit (expense)(2)	3	(2)	2	1
Total amount reclassified from Accumulated other comprehensive loss, net of tax(7)	16	21	(4)	(3)
Total Other comprehensive income (loss)	61	(29)	(3)	5
Balance at end of period	(359)	(583)	33	26
Total Accumulated other comprehensive loss	\$ (4,849)	\$ (4,740)	\$ (899)	\$ (814)

	Alcoa Corporation		Noncontrolling interest	
	Nine months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Pension and other postretirement benefits (I)				
Balance at beginning of period	\$ (2,283)	\$ (2,786)	\$ (46)	\$ (47)
Other comprehensive income:				
Unrecognized net actuarial (loss) gain and prior service cost/benefit	(120)	250	(14)	7
Tax benefit (expense)	28	(3)	4	(2)
Total Other comprehensive (loss) income before reclassifications, net of tax	(92)	247	(10)	5
Amortization of net actuarial loss and prior service cost/benefit(1)	177	487	4	2
Tax expense(2)	(15)	(52)	(1)	—
Total amount reclassified from Accumulated other comprehensive loss, net of tax(7)	162	435	3	2
Total Other comprehensive income (loss)	70	682	(7)	7
Balance at end of period	(2,213)	(2,104)	(53)	(40)
Foreign currency translation				
Balance at beginning of period	(2,071)	(1,467)	(810)	(581)
Other comprehensive loss(3)	(206)	(586)	(69)	(219)
Balance at end of period	(2,277)	(2,053)	(879)	(800)
Cash flow hedges (J)				
Balance at beginning of period	(211)	(929)	31	51
Other comprehensive (loss) income:				
Net change from periodic revaluations	(212)	344	35	(18)
Tax benefit (expense)	39	(58)	(11)	5
Total Other comprehensive (loss) income before reclassifications, net of tax	(173)	286	24	(13)
Net amount reclassified to earnings:				
Aluminum contracts(4)	34	87	—	—
Financial contracts(5)	(36)	(26)	(31)	(17)
Interest rate contracts(6)	4	—	—	—
Foreign exchange contracts(4)	12	2	—	—
Sub-total	14	63	(31)	(17)
Tax benefit (expense)(2)	11	(3)	9	5
Total amount reclassified from Accumulated other comprehensive loss, net of tax(7)	25	60	(22)	(12)
Total Other comprehensive (loss) income	(148)	346	2	(25)
Balance at end of period	(359)	(583)	33	26
Total Accumulated other comprehensive loss	\$ (4,849)	\$ (4,740)	\$ (899)	\$ (814)

- (1) These amounts were included in the computation of net periodic benefit cost for pension and other postretirement benefits (see Note I).
- (2) These amounts were reported in Provision for income taxes on the accompanying Statement of Consolidated Operations.
- (3) In all periods presented, there were no tax impacts related to rate changes and no amounts were reclassified to earnings.
- (4) These amounts were reported in Sales on the accompanying Statement of Consolidated Operations.
- (5) These amounts were reported in Cost of goods sold on the accompanying Statement of Consolidated Operations.
- (6) These amounts were reported in Other expenses, net of the accompanying Statement of Consolidated Operations.
- (7) A positive amount indicates a corresponding charge to earnings and a negative amount indicates a corresponding benefit to earnings.

G. Investments – A summary of unaudited financial information for Alcoa Corporation’s equity investments is as follows (amounts represent 100% of investee financial information):

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Sales	\$ 1,051	\$ 1,343	\$ 3,474	\$ 3,963
Cost of goods sold	809	1,062	2,789	3,100
Net income (loss)	4	46	(73)	143

In December 2009, Alcoa Corporation invested in a joint venture related to the ownership and operation of an integrated aluminum complex (bauxite mine, alumina refinery, aluminum smelter, and rolling mill) in the Kingdom of Saudi Arabia. The joint venture is owned 74.9% by Ma’aden and 25.1% by Alcoa Corporation, and originally consisted of three separate companies: MBAC, MAC, and MRC. Alcoa Corporation accounts for its investment in the joint venture under the equity method as one integrated investment asset, consistent with the terms of the joint venture agreement.

During the second quarter of 2019, Alcoa Corporation and Ma’aden amended the joint venture agreement that governs the operations of each of the three companies that comprise the joint venture. The amendment resulted in various changes (described in detail in Note C), effectively divesting the Company’s investment in MRC. The Company retained its 25.1% minority interest in MBAC and MAC, and Ma’aden will continue to own a 74.9% interest.

H. Inventories

	September 30, 2019	December 31, 2018
Finished goods	\$ 282	\$ 346
Work-in-process	276	189
Bauxite and alumina	493	609
Purchased raw materials	447	529
Operating supplies	151	146
	<u>\$ 1,649</u>	<u>\$ 1,819</u>

As of January 1, 2019, the Company changed its method for valuing certain of its inventories held in the United States and Canada to the average cost method of accounting from the LIFO method. Inventories held by other subsidiaries of the parent company were previously, and continue to be, valued principally using the average cost method. Management believes that the change in accounting is preferable as it results in a consistent method to value inventory across all regions of the business, it improves comparability with industry peers, and it more closely resembles the physical flow of inventory.

The effects of the change in accounting principle from LIFO to average cost have been retrospectively applied to all periods presented. This change resulted in a favorable adjustment to Retained earnings of \$205 and an unfavorable adjustment to Noncontrolling interest of \$35 as of January 1, 2018. In addition, certain financial statement line items in the Company’s Statement of Consolidated Operations, Statement of Consolidated Comprehensive Income, and Statement of Consolidated Cash Flows for the third quarter and the nine months ended September 30, 2018 and Consolidated Balance Sheet as of December 31, 2018 were adjusted as follows:

	As Originally Reported	Effect of Change	As Adjusted
Statement of Consolidated Operations for the third quarter ended September 30, 2018:			
Cost of goods sold	\$ 2,534	\$ (49)	\$ 2,485
Provision for income taxes	251	9	260
Net income	155	40	195
Net income attributable to noncontrolling interest	196	5	201
Net loss attributable to Alcoa Corporation	(41)	35	(6)
Earnings per share attributable to Alcoa Corporation common shareholders:			
Basic	\$ (0.22)	\$ 0.19	\$ (0.03)
Diluted	(0.22)	0.19	(0.03)

Statement of Consolidated Comprehensive Income for the third quarter ended September 30, 2018:

Comprehensive income	\$ 337	\$ 40	\$ 377
Comprehensive income attributable to noncontrolling interest	151	5	156
Comprehensive income attributable to Alcoa Corporation	186	35	221

Statement of Consolidated Operations for the nine months ended September 30, 2018:

Cost of goods sold	\$ 7,547	\$ (7)	\$ 7,540
Provision for income taxes	569	—	569
Net income	659	7	666
Net income attributable to noncontrolling interest	475	(8)	467
Net income attributable to Alcoa Corporation	184	15	199
Earnings per share attributable to Alcoa Corporation common shareholders:			
Basic	\$ 0.99	\$ 0.08	\$ 1.07
Diluted	0.97	0.09	1.06

Statement of Consolidated Comprehensive Income for the nine months ended September 30, 2018:

Comprehensive income	\$ 864	\$ 7	\$ 871
Comprehensive income attributable to noncontrolling interest	238	(8)	230
Comprehensive income attributable to Alcoa Corporation	626	15	641

Consolidated Balance Sheet as of December 31, 2018:

Inventories	\$ 1,644	\$ 175	\$ 1,819
Prepaid expenses and other current assets	301	19	320
Retained earnings	341	229	570
Noncontrolling interest	2,005	(35)	1,970

Statement of Consolidated Cash Flows for the nine months ended September 30, 2018:

Net income	\$ 659	\$ 7	\$ 666
Deferred income taxes	(16)	—	(16)
(Increase) in inventories	(279)	(7)	(286)

The following table compares the amounts that would have been reported under LIFO with the amounts recorded under the average cost method in the Consolidated Financial Statements as of September 30, 2019 and for the third quarter and nine months then ended:

	As Computed under LIFO	As Reported under Average Cost	Effect of Change
Statement of Consolidated Operations for the third quarter ended September 30, 2019:			
Cost of goods sold	\$ 2,104	\$ 2,120	\$ 16
Provision for income taxes	92	95	3
Net loss	(128)	(147)	(19)
Net income attributable to noncontrolling interest	70	74	4
Net loss attributable to Alcoa Corporation	(198)	(221)	(23)
Earnings per share attributable to Alcoa Corporation common shareholders:			
Basic	\$ (1.07)	\$ (1.19)	\$ (0.12)
Diluted	(1.07)	(1.19)	(0.12)
Statement of Consolidated Comprehensive Income for the third quarter ended September 30, 2019:			
Comprehensive loss	\$ (356)	\$ (375)	\$ (19)
Comprehensive loss attributable to noncontrolling interest	(14)	(10)	4
Comprehensive loss attributable to Alcoa Corporation	(342)	(365)	(23)
Statement of Consolidated Operations for the nine months ended September 30, 2019:			
Cost of goods sold	\$ 6,495	\$ 6,489	\$ (6)
Provision for income taxes	348	361	13
Net loss	(491)	(498)	(7)
Net income attributable to noncontrolling interest	305	324	19
Net loss attributable to Alcoa Corporation	(796)	(822)	(26)
Earnings per share attributable to Alcoa Corporation common shareholders:			
Basic	\$ (4.29)	\$ (4.43)	\$ (0.14)
Diluted	(4.29)	(4.43)	(0.14)
Statement of Consolidated Comprehensive Income for the nine months ended September 30, 2019:			
Comprehensive loss	\$ (849)	\$ (856)	\$ (7)
Comprehensive income attributable to noncontrolling interest	231	250	19
Comprehensive loss attributable to Alcoa Corporation	(1,080)	(1,106)	(26)
Consolidated Balance Sheet as of September 30, 2019:			
Inventories	\$ 1,471	\$ 1,649	\$ 178
Prepaid expenses and other current assets	236	245	9
Retained deficit	(455)	(252)	203
Noncontrolling interest	1,887	1,871	(16)
Statement of Consolidated Cash Flows for the nine months ended September 30, 2019:			
Net loss	\$ (491)	\$ (498)	\$ (7)
Deferred income taxes	46	59	13
Decrease in inventories	117	111	(6)

I. Pension and Other Postretirement Benefits – The components of net periodic benefit cost were as follows:

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Pension benefits				
Service cost	\$ 12	\$ 13	\$ 36	\$ 41
Interest cost ⁽¹⁾	55	56	167	170
Expected return on plan assets ⁽¹⁾	(81)	(84)	(244)	(256)
Recognized net actuarial loss ⁽¹⁾	43	47	127	154
Amortization of prior service cost ⁽¹⁾	1	2	4	6
Settlements ⁽²⁾	5	232	5	399
Curtailments ⁽²⁾	—	—	38	5
Net periodic benefit cost	\$ 35	\$ 266	\$ 133	\$ 519
	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Other postretirement benefits				
Service cost	\$ 1	\$ 2	\$ 3	\$ 4
Interest cost ⁽¹⁾	10	8	28	26
Recognized net actuarial loss ⁽¹⁾	2	3	7	10
Amortization of prior service benefit ⁽¹⁾	—	—	—	(1)
Settlements ⁽²⁾	—	(56)	—	(56)
Curtailments ⁽²⁾	—	—	—	(28)
Net periodic benefit cost	\$ 13	\$ (43)	\$ 38	\$ (45)

(1) These amounts were reported in Other expenses, net on the accompanying Statement of Consolidated Operations (see Note N).

(2) These amounts were reported in Restructuring and other charges, net on the accompanying Statements of Consolidated Operations (see Note C) and of Cash Flows.

Plan Actions. In 2019, management initiated the following actions to certain pension plans:

Action# 1 – In June 2019, the Company entered into a new, six-year collective bargaining agreement with the National Union of Aluminum Employees of Baie-Comeau. Under the agreement, all Canadian union employees that are participants in one of the Company's defined benefit pension plans will cease accruing retirement benefits for future service effective January 1, 2021. This change will affect approximately 700 employees, who are targeted to be transitioned to a target benefit plan, where the funding risk is assumed by the employees. The Company will contribute approximately 12% of these participants' eligible earnings on an annual basis. The Company will also contribute additional contributions of approximately \$2 spread over a three-year period to improve the financial position of the newly established target benefit plan. Participants already collecting benefits or who terminated with a vested benefit under the defined benefit pension plan are not affected by these changes.

Action# 2 – In July 2019, the Company entered into a new, six-year collective bargaining agreement with the United Steelworkers representing the employees of Aluminerie de Bécancour Inc. Under the agreement, all Canadian union employees that are participants in one of the Company's defined benefit pension plans ceased accruing retirement benefits for future service effective July 21, 2019. This change affected approximately 900 employees, who were transitioned to a member-funded pension plan, where the funding risk is assumed by the employees. The Company will contribute approximately 12% of these participants' eligible earnings on an annual basis. To improve the financial positions of both the existing defined benefit pension plan and newly established member-funded pension plan, the Company will contribute approximately \$5 in 2020 to the existing defined benefit pension plan and approximately \$2 spread over a five-year period to the newly established member-funded pension plan. Participants already collecting benefits or who terminated with a vested benefit under the defined benefit pension plan are not affected by these changes.

The above actions caused the respective plans to be remeasured, including an update to the discount rates used to determine the benefit obligations of the affected plans. The following table presents certain information and the financial impacts of these actions on the accompanying Consolidated Financial Statements:

Action#	Number of affected plan participants	Weighted average discount rate as of December 31, 2018	Plan remeasurement date	Weighted average discount rate as of plan remeasurement date	Increase to accrued pension benefits liability	Curtailment charge ⁽¹⁾
1	~700	3.85%	May 31, 2019	3.15%	\$ 52	\$ 38
2	~900	3.80%	June 30, 2019	3.00%	\$ 23	\$ —

(1) These amounts represent the accelerated amortization of a portion of the existing prior service cost and was reclassified from Accumulated other comprehensive loss to Restructuring and other charges, net (see Note C) on the accompanying Statement of Consolidated Operations.

J. Derivatives and Other Financial Instruments

Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (i) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (ii) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1 - Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates); and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 - Inputs that are both significant to the fair value measurement and unobservable.

Derivatives

Alcoa Corporation is exposed to certain risks relating to its ongoing business operations, including the risks of changing commodity prices, foreign currency exchange rates and interest rates. Alcoa Corporation's commodity and derivative activities include aluminum, energy, foreign exchange and interest rate contracts which are held for purposes other than trading. They are used primarily to mitigate uncertainty and volatility, and to cover underlying exposures. Alcoa Corporation is not involved in trading activities for energy, weather derivatives, or other nonexchange commodity trading activities.

Several of Alcoa Corporation's aluminum, energy, foreign exchange and interest rate contracts are classified as Level 1 or Level 2 under the fair value hierarchy. The total fair value of these derivative contracts recorded as assets and liabilities was \$12 and \$65, respectively, at September 30, 2019 and \$2 and \$54, respectively, at December 31, 2018. Certain of these contracts are designated as either fair value or cash flow hedging instruments. For the contracts designated as cash flow hedges, Alcoa Corporation recognized an unrealized loss of \$40 and \$43 in the 2019 third quarter and nine-month period, respectively, and an unrealized loss of \$7 and an unrealized gain of \$6 in the 2018 third quarter and nine-month period, respectively, in Other comprehensive (loss) income. Additionally, Alcoa Corporation reclassified a realized loss of \$16 and \$28 in the 2019 third quarter and nine-month period, respectively, and \$3 and \$10 in the 2018 third quarter and nine-month period, respectively, from Accumulated other comprehensive loss to Sales.

In addition to the Level 1 and 2 derivative instruments described above, Alcoa Corporation has several derivative instruments classified as Level 3 under the fair value hierarchy. These instruments are composed of (i) embedded aluminum derivatives and an embedded credit derivative related to energy supply contracts and (ii) freestanding financial contracts related to energy purchases made in the spot market, all of which are associated with nine smelters and three refineries. Certain of the embedded aluminum derivatives and financial contracts are designated as cash flow hedging instruments.

Alcoa Corporation had a power contract at one of its facilities which expired in March 2019 that indexed the price of power to the London Metal Exchange (LME) price of aluminum plus the Midwest premium. Prior to its expiration, this embedded derivative

was valued using the interrelationship of future metal prices (LME base plus Midwest premium) and the amount of megawatt hours of energy needed to produce the forecasted metric tons of aluminum at the smelter. Management elected not to qualify the embedded derivative for hedge accounting treatment.

In March 2019, Alcoa Corporation and the counterparty to the power contract described above entered into a new power contract which also contains an embedded derivative that indexes the price of power to the LME price of aluminum plus the Midwest premium. The embedded aluminum derivative is valued using the interrelationship of future metal prices (LME base plus Midwest premium) and the amount of megawatt hours of energy needed to produce the forecasted metric tons of aluminum at the smelter. An overall increase in actual LME price and the Midwest premium will result in a higher cost of power and a corresponding decrease to the derivative asset or increase to the derivative liability. The embedded derivative has been designated as a cash flow hedge of forward sales of aluminum. Unrealized gains and losses will be included in Accumulated other comprehensive loss on the accompanying Consolidated Balance Sheet while realized gains and losses will be included in Sales on the accompanying Statement of Consolidated Operations.

The following table presents quantitative information related to the significant unobservable inputs for Level 3 derivative instruments:

	Fair value at September 30, 2019	Unobservable input	Range (\$ in full amounts)
Assets:			
Financial contract	\$119	Interrelationship of forward energy price and the Consumer Price Index and price of electricity beyond forward curve	Electricity: \$70.04 per megawatt hour in 2019 to \$55.30 per megawatt hour in 2021
Embedded aluminum derivative	-	Interrelationship of LME price to the amount of megawatt hours of energy needed to produce the forecasted metric tons of aluminum	Aluminum: \$1,708 per metric ton in October 2019 to \$1,728 per metric ton in December 2019 Midwest premium: \$0.1800 per pound in October 2019 and to \$0.1900 per pound in December 2019 Electricity: rate of 2 million megawatt hours per year
Liabilities:			
Embedded aluminum derivative	201	Interrelationship of LME price to the amount of megawatt hours of energy needed to produce the forecasted metric tons of aluminum	Aluminum: \$1,708 per metric ton in 2019 to \$2,257 per metric ton in 2027 Electricity: rate of 4 million megawatt hours per year
Embedded aluminum derivatives	206	Interrelationship of LME and Midwest premium price to the amount of megawatt hours of energy needed to produce the forecasted metric tons of aluminum	Aluminum: \$1,708 per metric ton in 2019 to \$2,365 per metric ton in December 2029 (two contracts) and \$2,660 per metric ton in 2036 (one contract) Midwest premium: \$0.1800 per pound in 2019 to \$0.1900 per pound in 2029 (two contracts) and 2036 (one contract) Electricity: rate of 11 million megawatt hours per year
Embedded aluminum derivative	2	Interrelationship of LME price to overall energy price	Aluminum: \$1,847 per metric ton in October 2019 to December 2019
Embedded credit derivative	18	Estimated spread between the respective 30-year debt yield of Alcoa Corporation and the counterparty	3.08% (30-year debt yields: Alcoa Corporation – 6.44% (estimated) and counterparty – 3.36%)

The fair values of Level 3 derivative instruments recorded as assets and liabilities in the accompanying Consolidated Balance Sheet were as follows:

	September 30, 2019	December 31, 2018
Asset Derivatives		
Derivatives designated as hedging instruments:		
Fair value of derivative instruments – current:		
Financial contract	\$ 77	\$ 70
Fair value of derivative instruments – noncurrent:		
Embedded aluminum derivatives	—	41
Financial contract	42	42
Total derivatives designated as hedging instruments	119	153
Total Asset Derivatives	\$ 119	\$ 153
Liability Derivatives		
Derivatives designated as hedging instruments:		
Fair value of derivative instruments – current:		
Embedded aluminum derivatives	\$ 29	\$ 46
Fair value of derivative instruments – noncurrent:		
Embedded aluminum derivatives	380	218
Total derivatives designated as hedging instruments	409	264
Derivatives not designated as hedging instruments:		
Fair value of derivative instruments – current:		
Embedded aluminum derivative	—	5
Embedded credit derivative	4	4
Fair value of derivative instruments – noncurrent:		
Embedded credit derivative	14	16
Total derivatives not designated as hedging instruments	18	25
Total Liability Derivatives	\$ 427	\$ 289

The following tables present a reconciliation of activity for Level 3 derivative instruments:

	Assets		Liabilities	
	Financial contracts		Embedded aluminum derivatives	Embedded credit derivative
Third quarter ended September 30, 2019				
Balance at July 1, 2019	\$ 132	\$	515	\$ 20
Total gains or losses (realized and unrealized) included in:				
Sales	—		(9)	—
Cost of goods sold	(19)		—	(1)
Other expenses, net	—		—	(1)
Other comprehensive income (loss)	7		(97)	—
Other	(1)		—	—
Balance at September 30, 2019	\$ 119	\$	409	\$ 18
Change in unrealized gains or losses included in earnings for derivative instruments held at September 30, 2019:				
Other expenses, net	\$ —	\$	—	\$ (1)

	Assets		Liabilities	
	Embedded aluminum derivatives	Financial contracts	Embedded aluminum derivatives	Embedded credit derivative
Nine months ended September 30, 2019				
Opening balance – January 1, 2019	\$ 41	\$ 112	\$ 269	\$ 20
Total gains or losses (realized and unrealized) included in:				
Sales	—	—	(34)	—
Cost of goods sold	—	(78)	—	(3)
Other expenses, net	—	—	(2)	1
Other comprehensive (loss) income	(41)	89	181	—
Other	—	(4)	(5)	—
Closing balance – September 30, 2019	\$ —	\$ 119	\$ 409	\$ 18
Change in unrealized gains or losses included in earnings for derivative instruments held at September 30, 2019:				
Other expenses, net	\$ —	\$ —	\$ (2)	\$ 1

In the first quarter of 2019, there was an expiration of an existing and an issuance of a new embedded aluminum derivative (see above). In the 2019 nine-month period, there were no purchases, sales or settlements of Level 3 derivative instruments. Additionally, there were no transfers of derivative instruments into or out of Level 3.

Derivatives Designated As Hedging Instruments – Cash Flow Hedges

Alcoa Corporation has six Level 3 embedded aluminum derivatives and one Level 3 financial contract that have been designated as cash flow hedges.

At September 30, 2019 and December 31, 2018, these embedded aluminum derivatives hedged forecasted aluminum sales of 2,397 kmt and 2,508 kmt, respectively. Assuming market rates remain constant with the rates at September 30, 2019, a realized loss of \$29 is expected to be recognized in Sales over the next 12 months. There was no ineffectiveness related to these six derivative instruments in the 2019 and 2018 third quarter and nine-month periods.

At September 30, 2019 and December 31, 2018, the financial contract hedges forecasted electricity purchases of 4,510,440 and 6,348,276 megawatt hours, respectively. Assuming market rates remain consistent with the rates at September 30, 2019, a realized gain of \$76 is expected to be recognized in Cost of goods sold over the next 12 months. There was no ineffectiveness related to this derivative instrument in the third quarter and nine-month period of 2019. The amount of hedge ineffectiveness related to this derivative instrument was not material in the 2018 third quarter and nine-month period.

Material Limitations

The disclosures with respect to commodity prices and foreign currency exchange risk do not consider the underlying commitments or anticipated transactions. If the underlying items were included in the analysis, the gains or losses on the futures contracts may be offset. Actual results will be determined by several factors that are not under Alcoa Corporation's control and could vary significantly from those factors disclosed.

Alcoa Corporation is exposed to credit loss in the event of nonperformance by counterparties on the above instruments, as well as credit or performance risk with respect to its hedged customers' commitments. Alcoa Corporation does not anticipate nonperformance by any of these parties. Contracts are with creditworthy counterparties and are further supported by cash, treasury bills, or irrevocable letters of credit issued by carefully chosen banks. In addition, various master netting arrangements are in place with counterparties to facilitate settlement of gains and losses on these contracts.

Other Financial Instruments

The carrying values and fair values of Alcoa Corporation's other financial instruments were as follows:

	September 30, 2019		December 31, 2018	
	Carrying value	Fair value	Carrying value	Fair value
Cash and cash equivalents	\$ 841	\$ 841	\$ 1,113	\$ 1,113
Restricted cash	3	3	3	3
Long-term debt due within one year	1	1	1	1
Long-term debt, less amount due within one year	1,805	1,955	1,801	1,863

The following methods were used to estimate the fair values of other financial instruments:

Cash and cash equivalents and Restricted cash. The carrying amounts approximate fair value because of the short maturity of the instruments. The fair value amounts for Cash and cash equivalents and Restricted cash were classified in Level 1 of the fair value hierarchy.

Long-term debt due within one year and Long-term debt, less amount due within one year. The fair value was based on quoted market prices for public debt and on interest rates that are currently available to Alcoa Corporation for issuance of debt with similar terms and maturities for non-public debt. The fair value amounts for all Long-term debt were classified in Level 2 of the fair value hierarchy.

K. Income Taxes – Alcoa Corporation's estimated annualized effective tax rate (AETR) for 2019 as of September 30, 2019 differs from the U.S. federal statutory rate of 21% primarily due to losses in countries with full valuation reserves resulting in no tax benefit, as well as foreign income taxed in higher rate jurisdictions.

	Nine-months ended September 30,	
	2019	2018
(Loss) income before income taxes	\$ (137)	\$ 1,235
Estimated annualized effective tax rate	(686.2) %	43.6 %
Income tax expense	\$ 942	\$ 538
(Favorable) unfavorable tax impact related to losses in jurisdictions with no tax benefit	(590)	5
Discrete tax charge	9	26
Provision for income taxes	\$ 361	\$ 569

The Provision for income taxes for the 2019 nine-month period includes the change in estimated AETR from the second quarter of 2019. The change in estimated AETR is primarily due to fluctuating alumina and aluminum market prices as well as restructuring charges incurred in the 2019 nine-month period that resulted in changes to the distribution of the (Loss) income before income taxes in the Company's various jurisdictions, inclusive of those which receive no tax benefit from generated losses.

L. Leasing

As a result of the adoption of ASU No. 2016-02, Leases, management recorded a right-of-use asset and lease liability, each in the amount of \$201, on Alcoa Corporation's Consolidated Balance Sheet as of January 1, 2019 for several types of operating leases, including land and buildings, alumina refinery process control technology, plant equipment, vehicles, and computer equipment. These amounts are equivalent to the aggregate future lease payments on a discounted basis. The leases have remaining terms of one to 38 years. The discount rate applied to these leases is the Company's incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments, unless there is a rate implicit in the lease agreement. Lease expense for the third quarter ended September 30, 2019, includes costs from operating leases of \$21, variable lease payments of \$4 and immaterial short-term rental expense. Lease expense for the nine-months ended September 30, 2019, includes costs from operating leases of \$60, variable lease payments of \$12 and short-term rental expense of \$4. New leases of \$4 and \$11 were added during the three and nine-months ended September 30, 2019, respectively. The Company does not have material financing leases.

The following represents the aggregate right-of use assets and related lease obligations as of September 30, 2019:

Amounts recognized in the Consolidated Balance Sheet at September 30, 2019:

Properties, plants and equipment, net	\$	158
Other current liabilities		62
Other noncurrent liabilities and deferred credits		96
Total operating lease liabilities	\$	158

The weighted average lease term and weighted average discount rate as of September 30, 2019 were as follows:

Weighted average lease term

Operating leases	4.1 years
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Weighted average discount rate

Operating leases	5.3%
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The future cash flows related to the operating lease obligations as of September 30, 2019 were as follows:

Year Ending December 31,		Operating leases
2019 (excluding the nine months ended September 30)	\$	21
2020		68
2021		51
2022		19
2023		10
Thereafter		21
Total lease payments (undiscounted)		190
Less: discount to net present value		(32)
Total	\$	158

Disclosures related to periods presented prior to the adoption of ASU No. 2016-02

The Company adopted ASU No. 2016-02, Leases, on January 1, 2019 using the modified retrospective approach which requires the following disclosure for periods presented prior to adoption. The following table represents minimum annual lease commitments as of December 31, 2018 under long-term operating leases:

Year Ending December 31,		Operating leases
2019	\$	74
2020		56
2021		42
2022		11
2023		5
Thereafter		21
Total lease payments	\$	209

M. Contingencies and Commitments**Contingencies****Environmental Matters**

Alcoa Corporation participates in environmental assessments and cleanups at several locations. These include currently or previously owned or operated facilities and adjoining properties, and waste sites, including Superfund (Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)) sites.

A liability is recorded for environmental remediation when a cleanup program becomes probable and the costs can be reasonably estimated. As assessments and cleanups proceed, the liability is adjusted based on progress made in determining the extent of remedial actions and related costs. The liability can change substantially due to factors such as, among others, the nature and extent of contamination, changes in remedial requirements, and technology advancements.

Alcoa Corporation's environmental remediation reserve balance reflects the most probable costs to remediate identified environmental conditions for which costs can be reasonably estimated. The following table details the changes in the carrying value of recorded environmental remediation reserves:

Balance at December 31, 2017	\$	294
Liabilities incurred		19
Cash payments		(25)
Reversals of previously recorded liabilities		(3)
Foreign currency translation and other		(5)
Balance at December 31, 2018		<u>280</u>
Liabilities incurred		4
Cash payments		(12)
Reversals of previously recorded liabilities		(1)
Foreign currency translation and other		(2)
Balance at September 30, 2019	\$	<u>269</u>

At September 30, 2019 and December 31, 2018, the current portion of Alcoa Corporation's environmental remediation reserve balance was \$31 and \$44, respectively. In the third quarter and nine-month period of 2019, the Company incurred liabilities of \$2 and \$4, respectively. These charges are primarily recorded in Cost of goods sold on the accompanying Statement of Consolidated Operations.

Payments related to remediation expenses applied against the reserve were \$2 and \$12 in the 2019 third quarter and nine-month period, respectively. These amounts include mandated expenditures as well as those not required by any regulatory authority or third party. The reserve also reflects a decrease of \$2 in both the third quarter and nine-month period of 2019, due to the effects of foreign currency translation.

In the nine-month period of 2018, the remediation reserve was increased by \$15 due to a charge of \$9 related to the former Sherwin location (see below), a reversal of \$2 related to the Portovesme location, and a net charge of \$8 associated with several sites. Of the changes to the reserve in the nine-month period of 2018, a charge of \$15 was recorded in Cost of goods sold and both a charge of \$2 and a reversal of \$2 were recorded in Restructuring and other charges, net on the accompanying Statement of Consolidated Operations.

Payments related to remediation expenses applied against the reserve were \$5 and \$19 in the 2018 third quarter and nine-month period, respectively. These amounts include mandated expenditures as well as those not required by any regulatory authority or third party. The reserve also reflects both a decrease of \$1 and \$6 in the 2018 third quarter and nine-month period, respectively, due to the effects of foreign currency translation and an increase of \$1 in the 2018 nine-month period for reclassifications made between this reserve and the Company's liability for asset retirement obligations.

The estimated timing of cash outflows on the environmental remediation reserve at September 30, 2019 is as follows:

2019 (excluding the nine months ended September 30, 2019)	\$	8
2020 - 2024		146
Thereafter		<u>115</u>
Total	\$	<u>269</u>

Reserve balances at September 30, 2019 and December 31, 2018, associated with significant sites with active remediation underway or for future remediation were \$207 and \$214, respectively. In management's judgment, the Company's reserves are sufficient to satisfy the provisions of the respective action plans. Upon changes in facts or circumstances, a change to the reserve may be required. The Company's significant sites include:

Pocos de Caldas, Brazil—Associated with the 2015 closure of the Alcoa Alumínio S.A. smelter in Pocos de Caldas, Brazil, an environmental remediation reserve was established for remediation of historic spent potlining storage and disposal areas. The final remediation plan is currently under review; such review could require the reserve balance to be adjusted.

Fusina and Portovesme, Italy—Alcoa Corporation's subsidiary Alcoa Trasformazioni S.r.l. (Trasformazioni) has remediation projects underway for its closed smelter sites at Fusina and Portovesme. Cleanup plans at both sites have been approved by the Italian Ministry of Environment and Protection of Land and Sea (MOE). For the Fusina site, Trasformazioni began work on a soil remediation project in October 2017 and expects to complete the project in 2020. Additionally, Trasformazioni agreed to make annual payments to MOE over a 10-year period, ending in 2022, for groundwater emergency containment and natural resource damages related to the Fusina site. For the Portovesme site, Trasformazioni began work on a soil remediation project in mid-2016 and expects it to be complete by the end of 2020. Additionally, Trasformazioni participates in a groundwater remediation project which will not

have a final remedial design completed until mid-2020; such design conclusion may result in a change to the existing reserve for Portovesme.

Suriname—Associated with the 2017 closure of the Suralco refinery and bauxite mine, an environmental remediation reserve was established for treatment and disposal of refinery waste and soil remediation. The work began in 2017 and is expected to be completed at the end of 2025.

Hurricane Creek, Arkansas—The Company, through its subsidiaries, operated two mining areas and refineries near Hurricane Creek, Arkansas, before their closure in 1990. In accordance with regulations, the Company is responsible for ongoing monitoring and maintenance for water quality surrounding the mine areas and residue disposal areas. In instances where the Company has ongoing monitoring and maintenance responsibilities, it is Alcoa Corporation's policy to maintain a reserve equal to five years of expected costs.

Massena, New York—Associated with the closure of the Massena East smelter by the Company's subsidiary, Reynolds Metals Company, in 2015, an environmental remediation reserve was established for subsurface soil remediation to be performed after demolition of the structures. Remediation work is expected to commence in 2020 and will take four to eight years to complete.

Sherwin, Texas—In connection with the 2018 settlement of a dispute related to the previously-owned Sherwin alumina refinery, the Company's subsidiary, Copano Enterprises LLC, accepted responsibility for the final closure of four bauxite residue waste disposal areas (known as the Copano facility). Work commenced on the first residue bed in 2018 and will take eight to twelve years to complete, depending on the nature of its potential re-use. Work on the next three beds has not commenced but is expected to be completed by 2048, depending on its potential re-use. See Sherwin in the Other section below for a complete description of this matter.

Longview, Washington—In connection with a 2018 Consent Decree and Cleanup Action Plan with the State of Washington Department of Ecology, the Company's subsidiary, Northwest Alloys, accepted certain responsibilities for future remediation of contaminated soil and sediments at the site located near Longview, Washington.

Other Sites—The Company is in the process of decommissioning various other plants in several countries. As a result, redeveloping these sites for reuse or returning the land to a natural state requires the performance of certain remediation activities. In aggregate, there are approximately 35 remediation projects at these other sites that are planned or underway. These activities will be completed at various times in the future with the latest expected to be in 2026, after which ongoing monitoring and other activities may be required. At September 30, 2019 and December 31, 2018, the reserve balance associated with these activities was \$62 and \$66, respectively.

Tax

Spain—In July 2013, following a corporate income tax audit covering the 2006 through 2009 tax years, an assessment was received from Spain's tax authorities disallowing certain interest deductions claimed by ParentCo's Spanish consolidated tax group. ParentCo filed an appeal of this assessment and provided financial assurance in the form of both a bank guarantee (Arconic) and a lien secured with the San Ciprian smelter (Alcoa Corporation) to Spain's tax authorities. In January 2015, Spain's Central Tax Administrative Court denied ParentCo's appeal of this assessment. Two months later, ParentCo filed an appeal of the assessment in Spain's National Court (the National Court). The amount of this assessment, including interest, was \$152 (€131) as of June 30, 2018.

On July 6, 2018, the National Court denied ParentCo's appeal of the assessment; however, the decision includes a requirement that Spain's tax authorities issue a new assessment, which considers available net operating losses of the former Spanish consolidated tax group from prior tax years that can be utilized during the assessed tax years. Spain's tax authorities will not issue a new assessment until this matter is resolved; however, based on estimated calculations completed by Arconic and Alcoa Corporation (collectively, the Companies) as of July 6, 2018, the amount of the new assessment, including applicable interest, was expected to be in the range of \$25 to \$61 (€21 to €53) after consideration of available net operating losses and tax credits. Under the Tax Matters Agreement related to the Separation Transaction, Arconic and Alcoa Corporation are responsible for 51% and 49%, respectively, of the assessed amount in the event of an unfavorable outcome. On November 8, 2018, the Companies filed a petition for appeal to Spain's Supreme Court, to which Spain's tax authorities have filed their opposition.

In March 2019, the Spanish Supreme Court accepted the Companies' petition for appeal which allowed the Companies to prepare and submit an appeal on May 6, 2019.

Notwithstanding the appeal process, based on a review of the basis on which the National Court decided this matter, Alcoa Corporation management no longer believed that the Companies were more likely than not (greater than 50%) to prevail in this matter. Accordingly, in the third quarter of 2018, Alcoa Corporation recorded a charge of \$30 (€26) in Provision for income taxes to establish a liability for its 49% share of the estimated loss in this matter, representing management's best estimate at the time. As the appeal

progresses or when the Companies receive an updated assessment from Spain's tax authorities, management may revise its estimated liability.

Separately, in January 2017, the National Court issued a decision in favor of the former Spanish consolidated tax group related to a similar assessment for the 2003 through 2005 tax years, effectively making that assessment null and void. Additionally, in August 2017, in lieu of receiving a formal assessment, the Companies reached a settlement with Spain's tax authorities for the 2010 through 2013 tax years that had been under audit for a similar matter. Alcoa Corporation's share of this settlement was not material to the Company's Consolidated Financial Statements. The ultimate outcomes related to the 2003 through 2005 and the 2010 through 2013 tax years are not indicative of the potential ultimate outcome of the assessment for the 2006 through 2009 tax years due to procedural differences. Also, it is possible that the Companies may receive similar assessments for tax years subsequent to 2013; however, management does not expect any such assessment, if received, to be material to Alcoa Corporation's Consolidated Financial Statements.

Brazil (AWAB)—In March 2013, AWAB was notified by the Brazilian Federal Revenue Office (RFB) that approximately \$110 (R\$220) of value added tax credits previously claimed are being disallowed and a penalty of 50% assessed. Of this amount, AWAB received \$41 (R\$82) in cash in May 2012. The value-added tax credits were claimed by AWAB for both fixed assets and export sales related to the Juruti bauxite mine and São Luís refinery expansion. The RFB has disallowed credits they allege belong to the consortium in which AWAB owns an interest and should not have been claimed by AWAB. Credits have also been disallowed as a result of challenges to apportionment methods used, questions about the use of the credits, and an alleged lack of documented proof. AWAB presented defense of its claim to the RFB on April 8, 2013. If AWAB is successful in this administrative process, the RFB would have no further recourse. If unsuccessful in this process, AWAB has the option to litigate at a judicial level. Separately from AWAB's administrative appeal, in June 2015, new tax law was enacted repealing the provisions in the tax code that were the basis for the RFB assessing a 50% penalty in this matter. As such, the estimated range of reasonably possible loss for these matters is \$0 to \$53. It is management's opinion that the allegations have no basis; however, at this time, the Company is unable to reasonably predict an outcome for this matter.

Other

Reynolds—In 2000, ParentCo acquired Reynolds Metals Company (Reynolds, a subsidiary of Alcoa Corporation), which included an alumina refinery in Gregory, Texas. As a condition of the Reynolds acquisition, ParentCo was required to divest this alumina refinery. Under the terms of the divestiture, ParentCo agreed to retain responsibility for certain environmental obligations and assigned to the buyer an Energy Services Agreement (ESA) with Gregory Power Partners (Gregory Power) for purchase of steam and electricity by the refinery.

In January 2016, Sherwin Alumina Company, LLC (Sherwin), a successor owner of the refinery previously owned by Reynolds, filed for bankruptcy due to its inability to continue its bauxite supply agreement. As a result of Sherwin's bankruptcy filing, separate legal actions were initiated against Reynolds by Sherwin and Gregory Power.

Sherwin: This matter sought to determine responsibility for remediation of environmental conditions at the Sherwin refinery site and related bauxite residue waste disposal areas (known as the Copano facility). In May 2018, Reynolds and Sherwin concluded a settlement agreement, which was accepted by the bankruptcy court in June 2018, that assigned to Reynolds all environmental liabilities associated with the Copano facility and assigned to Sherwin all environmental liabilities associated with the Sherwin refinery site. At September 30, 2019 and December 31, 2018, the Company had a reserve of \$38 for its share of environmental-related matters at Copano facility. (See Sherwin, Texas in Environmental Matters above.)

Gregory Power: In January 2016, Gregory Power delivered notice to Reynolds that Sherwin's bankruptcy filing constitutes a breach of the ESA. Since that time, various responses, complaints and motions have been actioned, including the addition of Allied Alumina LLC (Allied) to an amended complaint. (Sherwin operated as a subsidiary of Allied.) In May 2019, a settlement agreement was reached between Gregory Power, Allied and Reynolds in which all claims pending against the parties will be voluntarily dismissed. The settlement is conditioned on the execution of various commercial agreements, which have been executed by the parties. On June 2, 2019, the Court entered a Stipulation of Dismissal, formally concluding the litigation. The settlement does not have an impact on the Consolidated Financial Statements.

General

In addition to the matters discussed above, various other lawsuits, claims, and proceedings have been or may be instituted or asserted against Alcoa Corporation, including those pertaining to environmental, safety and health, commercial, tax, product liability, intellectual property infringement, employment, and employee and retiree benefit matters, and other actions and claims arising out of the normal course of business. While the amounts claimed in these other matters may be substantial, the ultimate liability is not readily determinable because of the considerable uncertainties that exist. Accordingly, it is possible that the Company's liquidity or results of operations in a particular period could be materially affected by one or more of these other matters. However, based on facts currently

available, management believes that the disposition of these other matters that are pending or asserted will not have a material adverse effect, individually or in the aggregate, on the financial position of the Company.

Commitments

Investments

In December 2009, Alcoa Corporation invested in a joint venture related to the ownership and operation of an integrated aluminum complex (bauxite mine, alumina refinery, aluminum smelter, and rolling mill) in Saudi Arabia. The joint venture is owned 74.9% by Ma'aden and 25.1% by Alcoa Corporation, and originally consisted of three separate companies: the MBAC, MAC, and MRC. Alcoa Corporation divested its ownership interest in MRC in the second quarter of 2019 as described in Note C. Alcoa Corporation accounts for its investment in the joint venture under the equity method as one integrated investment asset, consistent with the terms of the joint venture agreement. As of September 30, 2019 and December 31, 2018, the carrying value of Alcoa Corporation's investment in this joint venture was \$615 and \$874, respectively.

At the time of closing, MRC had project financing totaling \$1,179, of which \$296 represented Alcoa Corporation's 25.1% interest in the rolling mill company prior to the divestiture. Alcoa Corporation had issued guarantees to the lenders in the event of default on the debt service requirements by MRC through 2018 and 2021 (Ma'aden issued similar guarantees related to its 74.9% interest). Alcoa Corporation's guarantees for MRC covered total remaining debt service requirements of \$50 in principal and up to a maximum of approximately \$10 in interest per year (based on projected interest rates). Previously, Alcoa Corporation issued similar guarantees related to the project financing of both MAC and MBAC. In December 2017 and July 2018, MAC and MBAC, respectively, refinanced and/or amended all of their existing outstanding debt. The guarantees that were previously required of the Company related to both MAC and MBAC were effectively terminated. At December 31, 2018, the combined fair value of the guarantees was \$1, which was included in Other noncurrent liabilities and deferred credits on the accompanying Consolidated Balance Sheet. As part of Alcoa Corporation's divestiture of MRC, the guarantee related to MRC was effectively terminated.

N. Other Expenses, Net

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Equity loss (income)	\$ 7	\$ (1)	\$ 34	\$ (2)
Foreign currency (gains) losses, net	(1)	(22)	16	(49)
Net (gain) loss from asset sales	(5)	3	(6)	—
Net gain on mark-to-market derivative instruments (J)	—	(8)	—	(19)
Non-service costs – Pension & OPEB (I)	30	32	89	109
Other	(4)	(2)	(15)	(7)
	<u>\$ 27</u>	<u>\$ 2</u>	<u>\$ 118</u>	<u>\$ 32</u>

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

(dollars in millions, except per-share amounts, average realized prices, and average cost amounts; dry metric tons in millions (mdmt); metric tons in thousands (kmt))

References in this Management's Discussion and Analysis of Financial Condition and Results of Operations to ParentCo refer to Alcoa Inc., a Pennsylvania corporation, and its consolidated subsidiaries through October 31, 2016, at which time it was renamed Arconic Inc. (Arconic). On November 1, 2016 (the Separation Date), ParentCo separated into two standalone, publicly-traded companies, Alcoa Corporation and Arconic (the Separation Transaction). In connection with the Separation Transaction, as of October 31, 2016, the Company and Arconic entered into several agreements to affect the Separation Transaction, including a Separation and Distribution Agreement and a Tax Matters Agreement. See Overview in Management's Discussion and Analysis of Financial Condition and Results of Operations in Part II Item 7 of Alcoa Corporation's Annual Report on Form 10-K for the year ended December 31, 2018 for additional information.

As of January 1, 2019, the Company changed its accounting method for valuing certain inventories from last-in, first-out (LIFO) to average cost. The effects of the change in accounting principle have been retrospectively applied to all prior periods presented.

Business Update

In October 2019, the Company announced initiatives aimed at driving lower costs and sustainable profitability. Planned initiatives include (i) over the next 12 to 18 months, Alcoa Corporation intends to pursue non-core asset sales in support of its updated strategic priorities and (ii) over the next five years, Alcoa Corporation plans to realign its operating portfolio and has placed 1.5 million metric tons of smelting capacity and 4 million metric tons of alumina refining capacity under review. The review will consider opportunities for significant improvement, potential curtailments, closures, or divestitures.

Additionally, in September 2019, Alcoa Corporation announced the implementation of a new operating model that will result in a leaner, more integrated, operator-centric organization. Effective November 1, 2019, the new operating model eliminates the business unit structure, consolidates sales, procurement and other commercial capabilities at an enterprise level, and streamlines the Executive Team from 12 to seven direct reports to the Chief Executive Officer. The new structure will reduce overhead with the intention of promoting operational and commercial excellence and increasing connectivity between the Company's plants and leadership. Annual operating cost savings of approximately \$60 related to the new operating model are expected beginning in the second quarter of 2020.

Results of Operations

Selected Financial Data:

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Sales	\$ 2,567	\$ 3,390	\$ 7,997	\$ 10,059
Net (loss) income attributable to Alcoa Corporation	\$ (221)	\$ (6)	\$ (822)	\$ 199
Diluted (loss) earnings per share attributable to Alcoa Corporation common shareholders	\$ (1.19)	\$ (0.03)	\$ (4.43)	\$ 1.06
Third-party shipments of alumina (kmt)	2,381	2,233	7,009	6,894
Third-party shipments of aluminum products (kmt)	708	806	2,141	2,453
Average realized price per metric ton of alumina	\$ 324	\$ 493	\$ 361	\$ 447
Average realized price per metric ton of primary aluminum	\$ 2,138	\$ 2,465	\$ 2,175	\$ 2,526

Overview—Net loss attributable to Alcoa Corporation was \$221 in the third quarter of 2019 compared with a Net loss attributable to Alcoa Corporation of \$6 in the third quarter of 2018. The decrease in results of \$215 was principally related to:

- Lower alumina and aluminum prices;

Partially offset by:

- Lower Provision for income taxes due primarily to lower income; and,
- Higher volumes in the Alumina segment.

Net loss attributable to Alcoa Corporation was \$822 in the 2019 nine-month period compared with Net income attributable to Alcoa Corporation of \$199 in the 2018 nine-month period. The decrease in results of \$1,021 was principally related to:

- Lower alumina and aluminum prices; and,
- Higher Restructuring and other charges, net.

Partially offset by:

- Lower Provision for income taxes due primarily to lower income;
- Favorable currency impacts of the Australian dollar, the Brazilian real and euro against the US dollar; and,
- Higher volumes, primarily in the Alumina segment.

Sales—Sales were \$2,567 in the third quarter of 2019 compared with sales of \$3,390 in the third quarter of 2018. The decline of \$823, or 24%, was principally related to:

- Lower alumina and aluminum prices;
- Lower revenue from flat-rolled aluminum products due to the end of the tolling arrangement with Arconic in December 2018; and,
- The divestiture of two Spanish facilities.

Partially offset by:

- Higher volumes in the Alumina segment.

Sales were \$7,997 in the nine-month period of 2019 compared with sales of \$10,059 in the nine-month period of 2018. The decline of \$2,062, or 21%, was principally related to:

- Lower alumina and aluminum prices;
- The divestiture of two Spanish facilities; and,
- Lower revenue from flat-rolled aluminum products due to the end of the tolling arrangement with Arconic in December 2018.

Partially offset by:

- Higher volumes in the Alumina segment.

Cost of goods sold—As a percentage of Sales, Cost of goods sold was 83% in the third quarter of 2019 and 81% in the 2019 nine-month period compared with 73% in the third quarter of 2018 and 75% in the 2018 nine-month period. The third quarter percentage was negatively impacted by a lower average realized price for both alumina and aluminum and higher aluminum production costs, partially offset by lower raw material costs, particularly petroleum coke and caustic soda. The 2019 nine-month percentage was negatively impacted by a lower average realized price for both alumina and aluminum along with unfavorable energy costs and higher maintenance-related expenses in the Alumina segment. These negative impacts were partially offset by lower raw material costs, particularly caustic soda.

Selling, general administrative, and other expenses—Selling, general administrative, and other expenses increased by \$8, or 14%, and increased by \$29, or 15%, in the third quarter and nine-month period of 2019, respectively. Both 2019 periods are higher compared with the corresponding periods of 2018 due primarily to higher consulting costs. Additionally, the nine-month period of 2019 includes the unfavorable impact of a bad debt reserve recorded against a Canadian customer receivable due to a 2019 bankruptcy filing.

Provision for depreciation, depletion, and amortization—Provision for depreciation, depletion, and amortization increased \$11, or 6%, and decreased \$29, or 5%, in the third quarter and nine-month period of 2019, respectively, compared with the corresponding periods in 2018. The increase in the third quarter of 2019 is primarily attributable to the write-offs of costs for capital projects no longer being pursued. The decrease in the nine-month period of 2019 is primarily due to a group of assets, which were acquired in a former ParentCo transaction, reaching the end of their depreciable lives, the disposition of two Spanish facilities and favorable foreign currency impacts on the US dollar, primarily against the Brazilian real and the Australian dollar.

Restructuring and other charges, net—In the third quarter and nine-month period of 2019, Alcoa Corporation recorded Restructuring and other charges, net, of \$185 and \$668, respectively, which were comprised of the following components:

- \$134 and \$242, respectively, for exit costs related to the Avilés and La Coruña Spanish facilities;
- \$37 (both periods) related to employee termination and severance costs related to the new operating model;
- \$38 (nine-month period only) related to the curtailment of certain pension benefits; and,
- \$319 (nine-month period only) related to the divestiture of Alcoa Corporation's interest in MRC.

In the third quarter and nine-month period of 2018, Alcoa Corporation recorded Restructuring and other charges, net, of \$177 and \$389, respectively, which were comprised of the following components:

- \$174 and \$318, respectively, related to settlements and/or curtailments of certain pension and other postretirement employee benefits;
- \$2 and \$86, respectively, for energy supply agreement costs related to the curtailed Wenatchee (Washington) smelter; and,
- \$15 net benefit (nine-month period only) for settlement of matters related to the Portovesme (Italy) smelter.

See Note C to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q for additional detail on the above net charges.

Other expenses, net— Other expenses, net was \$27 in the third quarter of 2019 compared with \$2 in the third quarter of 2018, and \$118 in the 2019 nine-month period compared with \$32 in the 2018 nine-month period. The unfavorable change of \$25 in the third quarter of 2019 was largely attributable to the absence of favorable changes in foreign currency movements, mark-to-market gains on derivative instruments, and an unfavorable change in equity earnings, primarily related to the aluminum complex joint venture in Saudi Arabia as a result of lower alumina and aluminum prices. These unfavorable impacts were partially offset by a gain on disposition of surplus property and lower non-service costs related to pension and other postretirement employee benefits.

The unfavorable change of \$86 in the comparable nine-month periods was largely attributable to the unfavorable change in foreign currency movements, an unfavorable change in equity earnings, primarily related to the aluminum complex joint venture in Saudi Arabia as a result lower alumina and aluminum prices, and the absence of favorable changes in mark-to-market impacts on derivative instruments. The unfavorable impacts were partially offset by lower non-service costs related to pension and other postretirement employee benefits and a gain on disposition of surplus property.

Provision for income taxes— Alcoa Corporation's estimated AETR for 2019 as of September 30, 2019 differs from the U.S. federal statutory rate of 21% primarily due to losses in countries with full valuation reserves resulting in no tax benefit, as well as foreign income taxed in higher rate jurisdictions. The Provision for income taxes for the 2019 nine-month period includes the change in estimated AETR from the second quarter of 2019. The change in estimated AETR is primarily due to fluctuating alumina and aluminum market prices as well as restructuring charges incurred in the 2019 nine-month period that resulted in changes to the distribution of the (Loss) income before income taxes in the Company's various jurisdictions, inclusive of those which receive no tax benefit from generated losses. In the fourth quarter of 2019, the Provision for income taxes is expected to reflect further impacts of fluctuating alumina and aluminum market prices on the estimated AETR.

Noncontrolling interest— Net income attributable to noncontrolling interest was \$74 and \$324, in the third quarter and nine-month period of 2019, respectively, compared with \$201 and \$467, in the third quarter and nine-month period of 2018, respectively. These amounts are entirely related to Alumina Limited's 40% ownership interest in several affiliated operating entities, which own, have an interest in, or operate certain bauxite mines and alumina refineries within Alcoa Corporation's Bauxite and Alumina segments and a portion (55%) of the Portland smelter (Australia) within the Company's Aluminum segment. See Note A to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

In the third quarter and nine-months ended 2019, these combined entities, particularly the Alumina segment entities, generated lower net income compared with the same periods in 2018. The unfavorable change in earnings was mostly driven by lower alumina prices (see Alumina under Segment Information below).

Segment Information

Bauxite

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Production ⁽¹⁾ (mdmt)	12.1	11.5	35.3	34.0
Third-party shipments (mdmt)	2.0	1.4	4.7	4.1
Intersegment shipments (mdmt)	10.6	10.1	31.1	30.5
Total shipments (mdmt)	12.6	11.5	35.8	34.6
Third-party sales	\$ 100	\$ 67	\$ 232	\$ 191
Intersegment sales	251	224	733	699
Total sales	\$ 351	\$ 291	\$ 965	\$ 890
Segment Adjusted EBITDA	\$ 134	\$ 106	\$ 372	\$ 316
Operating costs ⁽²⁾	\$ 242	\$ 206	\$ 657	\$ 635
Average cost per dry metric ton of bauxite	\$ 19	\$ 18	\$ 18	\$ 18

(1) The production amounts do not include additional bauxite (approximately 3 mdmt per annum) that AWAC is entitled to receive (i.e. an amount in excess of its equity ownership interest) from certain other partners at the mine in Guinea.

(2) Includes all production-related costs, including conversion costs, such as labor, materials, and utilities; depreciation, depletion, and amortization; and plant administrative expenses.

In October 2019, the Company and representatives of the Australian Workers' Union (AWU) reached agreement on the terms of a proposed new AWU Enterprise Agreement (EA) for employees at Alcoa's Western Australian Operations. The proposed EA will be subject to an employee vote in November 2019.

Bauxite production increased 5% in the third quarter of 2019 compared with the third quarter of 2018, a quarterly production record for the Bauxite segment. Compared with the third quarter of 2018, the third quarter of 2019 had higher production at the Australian mines and the Boké (Guinea) mine. Bauxite production increased 4% for the nine-month period of 2019 compared with the nine-month period in 2018, primarily due to the increase in production at the Huntly (Australia) mine due to planned production increases. For both periods, the increased stability in the Alumina segment has contributed to the increase in bauxite production from increased demand.

Third-party sales for the Bauxite segment increased 49% and 21% in the third quarter and nine-month period of 2019, respectively, compared with the corresponding periods in 2018. The increase in both periods was primarily due to the increase in volume driven by higher production in addition to a higher realized price, primarily due to freight.

Intersegment sales increased 12% and 5% in the third quarter and nine-month period of 2019, respectively, compared with the corresponding periods in 2018. The increase in both periods of 2019 was primarily driven by a higher average realized price in addition to higher volumes driven by higher production.

Segment Adjusted EBITDA increased \$28 and \$56 in third quarter and nine-month period of 2019, respectively, compared with the corresponding periods in 2018. The improvements in the third quarter of 2019 compared with the third quarter of 2018 is primarily the result of higher average realized price on intercompany sales and higher sales volume. The increase in the nine-month period of 2019 compared with the nine-month period of 2018 is mainly the result of a higher average realized price for intersegment sales combined with favorable foreign currency movements due to a stronger U.S. dollar against the Australian dollar and Brazilian real.

For the fourth quarter of 2019 in comparison with the fourth quarter of 2018, higher production at the Boké (Guinea) mine is projected, in addition to a higher average realized price for intersegment sales, partially offset by higher planned maintenance costs.

Alumina

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Production (kmt)	3,380	3,160	9,929	9,560
Third-party shipments (kmt)	2,381	2,233	7,009	6,894
Intersegment shipments (kmt)	1,049	1,083	3,091	3,211
Total shipments ⁽¹⁾ (kmt)	3,430	3,316	10,100	10,105
Third-party sales	\$ 771	\$ 1,101	\$ 2,532	\$ 3,083
Intersegment sales	369	544	1,231	1,534
Total sales	\$ 1,140	\$ 1,645	\$ 3,763	\$ 4,617
Segment Adjusted EBITDA	\$ 223	\$ 660	\$ 964	\$ 1,690
Average realized third-party price per metric ton of alumina	\$ 324	\$ 493	\$ 361	\$ 447
Operating costs ⁽²⁾	\$ 902	\$ 969	\$ 2,750	\$ 2,896
Average cost per metric ton of alumina	\$ 263	\$ 292	\$ 272	\$ 287

(1) Total shipments include metric tons that were not produced by the Alumina segment. Such alumina was purchased by this segment to satisfy certain customer commitments. The Alumina segment bears the risk of loss of the purchased alumina until control of the product has been transferred to this segment's customer.

(2) Includes all production-related costs, including raw materials; conversion costs, such as labor, materials, and utilities; depreciation and amortization; and plant administrative expenses.

In October 2019, the Company and representatives of the AWU reached agreement on the terms of a proposed new AWU Enterprise Agreement for employees at Alcoa's Western Australian Operations. The proposed EA will be subject to an employee vote in November 2019.

At September 30, 2019, the Alumina segment had 2,519 kmt of curtailed refining capacity on a base capacity of 15,064 kmt. Both curtailed capacity and base capacity were unchanged compared with September 30, 2018.

Alumina production increased by 7% in the third quarter of 2019 compared with the third quarter of 2018, a quarterly production record for the Alumina segment, and increased 4% in the 2019 nine-month period compared with the 2018 nine-month period. Both increases were principally due to stabilization of operations across the refining system.

Third-party sales for the Alumina segment decreased 30% in the third quarter of 2019 and 18% in the 2019 nine-month period compared with the corresponding periods in 2018. The decrease in both periods was primarily related to a decline in average realized price which was principally driven by a lower average alumina index price (on 30-day lag). In third quarter of 2019, the decline in average realized price was partially offset by a 7% increase in volume.

Intersegment sales declined 32% and 20% in the third quarter and nine-month period of 2019, respectively, compared with the corresponding periods in 2018, primarily due to a lower average realized price and decreased demand from the Aluminum segment. The decreased demand from the Aluminum segment was partially caused by the smelter curtailments and subsequent divestiture of the Avilés (Spain) and La Coruña (Spain) facilities and the curtailment at the Bécancour (Canada) smelter (see Aluminum below).

Segment Adjusted EBITDA decreased \$437 and \$726 in the third quarter and nine-month period of 2019, respectively, compared with the same periods in 2018. The decline in the third quarter period of 2019 was largely attributed to the decline in average realized price of alumina and higher bauxite costs. These impacts were partially offset by increased volume, lower unit costs for caustic soda and net favorable foreign currency movements due to a stronger U.S. dollar (particularly against the Australian dollar). The decline in the nine-month period of 2019 was primarily due to the decline in average realized price, increased maintenance expenses to support the stabilization of operations across the refining system, primarily in Australia, and higher bauxite costs. These unfavorable impacts were partially offset by net favorable foreign currency movements due to a stronger U.S. dollar, particularly against the Australian dollar, and lower unit costs for caustic soda.

In the fourth quarter of 2019 in comparison with the fourth quarter of 2018, an increase in production is expected with lower unit costs for caustic soda and an improvement in raw material consumption and maintenance activities. Higher bauxite costs are expected to slightly reduce the impact of these favorable changes.

Aluminum

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Third-party aluminum shipments ⁽¹⁾ (kmt)	708	806	2,141	2,453
Third-party sales	\$ 1,677	\$ 2,198	\$ 5,169	\$ 6,722
Intersegment sales	4	6	11	14
Total sales	\$ 1,681	\$ 2,204	\$ 5,180	\$ 6,736
Segment Adjusted EBITDA ⁽²⁾	\$ 43	\$ 84	\$ (50)	\$ 501
<u>Primary aluminum information⁽³⁾</u>				
Production (kmt)	530	567	1,600	1,686
Third-party shipments ⁽⁴⁾ (kmt)	627	673	1,893	2,049
Third-party sales	\$ 1,341	\$ 1,658	\$ 4,117	\$ 5,176
Average realized third-party price per metric ton ⁽⁵⁾	\$ 2,138	\$ 2,465	\$ 2,175	\$ 2,526
Total shipments ⁽⁴⁾ (kmt)	651	696	1,946	2,137
Operating costs ⁽⁶⁾	\$ 1,425	\$ 1,754	\$ 4,505	\$ 5,169
Average cost per metric ton ⁽²⁾	\$ 2,189	\$ 2,520	\$ 2,315	\$ 2,419

(1) Third-party aluminum shipments are composed of both primary aluminum and flat-rolled aluminum.

(2) As of January 1, 2019, the Company changed its accounting method for valuing certain inventories from LIFO to average cost. The effects of the change in accounting principle have been retrospectively applied to all prior periods presented. As a result, Segment Adjusted EBITDA for Aluminum increased \$11 and \$44 for the third quarter and nine-month period of 2018, respectively, with the Average cost per metric ton of primary aluminum decreasing by \$20 and \$22 for the third quarter and nine-month period of 2018, respectively.

(3) The primary aluminum information presented does not include flat-rolled aluminum.

(4) Third-party and Total primary aluminum shipments include metric tons that were not produced by the Aluminum segment. Such aluminum was purchased by this segment to satisfy certain customer commitments. The Aluminum segment bears the risk of loss of the purchased aluminum until control of the product has been transferred to this segment's customers.

(5) Average realized price per metric ton of primary aluminum includes three elements: a) the underlying base metal component, based on quoted prices from the LME; b) the regional premium, which represents the incremental price over the base LME component that is associated with the physical delivery of metal to a particular region (e.g., the Midwest premium for metal sold

in the United States); and c) the product premium, which represents the incremental price for producing physical metal into a particular shape (e.g., billet, rod, slab, etc.) or adding an alloy.

- (6) Includes all production-related costs, including raw materials; conversion costs, such as labor, materials, and utilities; depreciation and amortization; and plant administrative expenses.

The following table provides annual consolidated base and idle capacity (each in kmt) for each smelter owned by Alcoa Corporation:

Facility	Country	September 30, 2019		September 30, 2018		Base Change	Idle Change
		Base Capacity	Idle Capacity	Base Capacity	Idle Capacity		
Portland ⁽¹⁾	Australia	197	30	197	30	—	—
São Luís (Alumar) ⁽¹⁾	Brazil	268	268	268	268	—	—
Baie Comeau	Canada	280	—	280	—	—	—
Bécancour ⁽¹⁾	Canada	310	259	310	207	—	52
Deschambault	Canada	260	—	260	—	—	—
Fjarðará	Iceland	344	—	344	—	—	—
Lista	Norway	94	—	94	—	—	—
Mosjøen	Norway	188	—	188	—	—	—
San Ciprián	Spain	228	—	228	—	—	—
Avilés	Spain	—	—	93	32	(93)	(32)
La Coruña	Spain	—	—	87	24	(87)	(24)
Intalco	U.S.	279	49	279	49	—	—
Massena West	U.S.	130	—	130	—	—	—
Warrick	U.S.	269	108	269	161	—	(53)
Wenatchee	U.S.	146	146	146	146	—	—
		2,993	860	3,173	917	(180)	(57)

- (1) These figures represent Alcoa Corporation's share of the facility capacity based on its ownership interest in the respective smelter.

Idle capacity at the Bécancour smelter increased by 52 kmt from the third quarter 2018 to the third quarter 2019 as a result of an additional curtailment in December 2018. This half potline curtailment was deemed necessary to ensure continued safety and maintenance due to retirements and departures among the salaried workforce from January 2018 to December 2018. Due to the lockout of bargained hourly employees, which commenced in January 2018, the salaried workforce at Bécancour had been operating the remaining potline. In July 2019, the United Steelworkers approved a new six-year labor contract and the plant began the restart process on July 26, 2019. A recall of the approximately 900 unionized employees who had been on lockout is being completed in accordance with a specific back-to-work protocol, with those on lockout generally being recalled within eight months of the restart process commencement. The restart process is expected to be completed within the second quarter of 2020.

Base and idle capacity at the Avilés and La Coruña facilities decreased from the third quarter of 2018 to the third quarter of 2019 as a result of the curtailment (February 2019) and subsequent divestiture (July 2019) of these smelters. In addition to the smelters at these locations, the casthouse at each facility and the paste plant at La Coruña were also divested. See Note C to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q for additional information related to the curtailment and divestiture of these facilities.

Idle capacity at the Warrick smelter decreased by 53 kmt from the third quarter of 2018 to the third quarter of 2019. The Company completed the planned restart of the third potline in December 2018, finalizing the previously announced restart plan for the Warrick smelter. The smelter capacity restarted directly supplies the existing rolling mill at the location, improving efficiency of the integrated site and providing an additional source of metal to help meet production volume needs.

In September 2019, members of the United Steelworkers (USW) ratified a new labor agreement, covering approximately 1,700 active employees, primarily from the Aluminum segment. The new agreement, which is now in effect, covers employees represented by the USW at Warrick Operations in Indiana, Massena Operations in New York, Wenatchee Works in Washington, Gum Springs in Arkansas, and Point Comfort in Texas.

Primary aluminum production decreased 7% and 5% in the third quarter and nine-month period of 2019, respectively, compared with the corresponding periods in 2018, principally due to the capacity changes discussed above.

Third-party sales for the Aluminum segment decreased 24% and 23% in the third quarter and nine-month period of 2019, respectively, compared with the corresponding periods in 2018. The decrease was primarily attributable to a reduction in metal price

and a decrease in overall aluminum volume. The change in average realized price of primary aluminum was mainly driven by a 14% lower average LME price (on 15-day lag) for both the third quarter and nine-month period combined with a decrease in regional premiums in the nine-month period ended September 30, 2019.

The lower overall volume was primarily the result of a decline in flat-rolled aluminum shipments caused by the end of the tolling arrangement with Arconic in December 2018, the curtailments and subsequent divestiture of the Avilés and La Coruña facilities, and the half potline curtailment at the Bécancour (Canada) smelter.

Segment Adjusted EBITDA decreased \$41 and \$551 in the third quarter and nine-month period of 2019, respectively, compared with the corresponding periods in 2018. The decline in the third quarter of 2019 was mainly related to lower metal prices in addition to lower energy sales prices in Brazil which were partially offset by the absence of Section 232 tariffs on aluminum imported from Canada to the United States in the third quarter of 2019 and lower costs for alumina and carbon materials. The decline in the 2019 nine-month period was mainly related to lower metal prices and regional premiums, lower energy sales prices in Brazil, higher energy production costs and the establishment of a bad debt reserve against a Canadian customer receivable in the first quarter of 2019. The 2019 nine-month period decline was partially offset by lower costs for alumina and favorable foreign currency movements due to a stronger U.S. dollar mainly against the Australian dollar and Brazilian real.

In the fourth quarter of 2019 compared with the fourth quarter of 2018, lower production costs are anticipated, mainly driven by lower alumina and carbon prices, partially offset by lower metal prices. Additionally, a positive impact resulting from the elimination of Section 232 tariffs on Canadian imports is expected.

Reconciliation of Certain Segment Information

Reconciliation of Total Segment Third-Party Sales to Consolidated Sales

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Bauxite	\$ 100	\$ 67	\$ 232	\$ 191
Alumina	771	1,101	2,532	3,083
Aluminum:				
Primary aluminum	1,341	1,658	4,117	5,176
Other ⁽¹⁾	336	540	1,052	1,546
Total segment third-party sales	2,548	3,366	7,933	9,996
Other	19	24	64	63
Consolidated sales	\$ 2,567	\$ 3,390	\$ 7,997	\$ 10,059

- (1) Other includes third-party sales of flat-rolled aluminum and energy, as well as realized gains and losses related to embedded derivative instruments designated as cash flow hedges of forward sales of aluminum.

Reconciliation of Total Segment Operating Costs to Consolidated Cost of Goods Sold

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Bauxite	\$ 242	\$ 206	\$ 657	\$ 635
Alumina	902	969	2,750	2,896
Primary aluminum	1,425	1,754	4,505	5,169
Other ⁽¹⁾	333	485	1,060	1,438
Total segment operating costs	2,902	3,414	8,972	10,138
Eliminations ⁽²⁾	(649)	(795)	(2,035)	(2,192)
Provision for depreciation, depletion, amortization ⁽³⁾	(177)	(165)	(507)	(536)
Other ⁽⁴⁾	44	31	59	130
Consolidated cost of goods sold	\$ 2,120	\$ 2,485	\$ 6,489	\$ 7,540

- (1) Other largely relates to the Aluminum segment's flat-rolled aluminum product division.

- (2) This line item represents the elimination of cost of goods sold related to intersegment sales between Bauxite and Alumina and between Alumina and Aluminum.

- (3) Depreciation, depletion, and amortization is included in the operating costs used to calculate average cost for each of the bauxite, alumina, and primary aluminum product divisions (see Bauxite, Alumina, and Aluminum above). However, for financial reporting purposes, depreciation, depletion, and amortization is presented as a separate line item on Alcoa Corporation's Statement of Consolidated Operations.
- (4) Other includes costs related to Transformation and certain other items that impact Cost of goods sold on Alcoa Corporation's Statement of Consolidated Operations that are not included in the operating costs of segments (see footnotes 2 and 5 in the Reconciliation of Total Segment Adjusted EBITDA to Consolidated Net (Loss) Income Attributable to Alcoa Corporation below).

Reconciliation of Total Segment Adjusted EBITDA to Consolidated Net (Loss) Income Attributable to Alcoa Corporation

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Total segment Adjusted EBITDA ⁽¹⁾	\$ 400	\$ 850	\$ 1,286	\$ 2,507
Unallocated amounts:				
Transformation ⁽²⁾	(6)	1	(1)	(2)
Intersegment eliminations ^{(1),(3)}	25	21	110	(55)
Corporate expenses ⁽⁴⁾	(27)	(22)	(79)	(75)
Provision for depreciation, depletion, and amortization	(184)	(173)	(530)	(559)
Restructuring and other charges, net	(185)	(177)	(668)	(389)
Interest expense	(30)	(33)	(90)	(91)
Other expenses, net	(27)	(2)	(118)	(32)
Other ⁽⁵⁾	(18)	(10)	(47)	(69)
Consolidated (loss) income before income taxes	(52)	455	(137)	1,235
Provision for income taxes	(95)	(260)	(361)	(569)
Net income attributable to noncontrolling interest	(74)	(201)	(324)	(467)
Consolidated net (loss) income attributable to Alcoa Corporation	<u>\$ (221)</u>	<u>\$ (6)</u>	<u>\$ (822)</u>	<u>\$ 199</u>

- (1) As of January 1, 2019, the Company changed its accounting method for valuing certain inventories from LIFO to average cost. The effects of the change in accounting principle have been retrospectively applied to all prior periods presented. As a result, in the third quarter and nine-month period of 2018, Total Segment Adjusted EBITDA increased \$11 and increased \$44, respectively, and Intersegment eliminations increased \$38 and decreased \$37, respectively.
- (2) Transformation includes, among other items, the Adjusted EBITDA of previously closed operations.
- (3) Concurrent with the change in inventory accounting method as of January 1, 2019, management elected to change the presentation of certain line items in the reconciliation of total Segment Adjusted EBITDA to Consolidated net (loss) income attributable to Alcoa Corporation. Corporate inventory accounting previously included the impact of LIFO, metal price lag and intersegment eliminations. The impact of LIFO has been eliminated with the change in inventory method. Metal price lag attributable to the Company's rolled operations business is now netted within the Aluminum segment to simplify presentation of an impact that nets to zero in consolidation. Only Intersegment eliminations remain as a reconciling line item and are labeled as such.
- (4) Corporate expenses are composed of general administrative and other expenses of operating the corporate headquarters and other global administrative facilities, as well as research and development expenses of the corporate technical center.
- (5) Other includes certain items that impact Cost of goods sold and Selling, general administrative, and other expenses on Alcoa Corporation's Statement of Consolidated Operations that are not included in the Adjusted EBITDA of the reportable segments.

Environmental Matters

See the Environmental Matters section of Note M to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

Liquidity and Capital Resources

Cash from Operations

Cash provided from operations was \$424 in the 2019 nine-month period compared with cash used for operations of \$87 in the same period of 2018, resulting in an increase in cash provided of \$511. Notable changes to sources and (uses) of cash include:

- \$669 in certain working capital accounts (receivables, inventories, and accounts payable, trade);

- \$873 from lower pension contributions, including the absence of \$705 in unscheduled, discretionary payments made in the nine-month period 2018 which were primarily funded with a combination of net proceeds from the May 2018 debt issuance discussed below and cash on hand;
- \$93 related to current value-added tax at foreign locations;
- \$74 resulting from the non-recurrence of a payment made in the first quarter of 2018 related to a legacy legal matter with the U.S. government assumed by the Company in the Separation Transaction;
- \$62 resulting from the non-recurrence of a payment made in the second quarter of 2018 related to the energy supply agreement for the Wenatchee (Washington) smelter;
- \$28 resulting from the decrease in other postretirement benefit payments in the 2019 nine-month period compared with the 2018 nine-month period;
- \$18 resulting from the non-recurrence of a payment made in the second quarter of 2018 for the settlement of a legal matter in Italy; and,
- (\$592) relating to changes in taxes, including income taxes. The use of cash includes changes related to higher tax payments made in the 2019 nine-month period compared with the 2018 nine-month period, primarily payments on income taxes, and changes in the underlying tax accounts.

Financing Activities

Cash used for financing activities was \$351 in the 2019 nine-month period compared with cash provided from financing activities of \$6 in the corresponding period of 2018, resulting in an unfavorable change of \$357.

The use of cash in the 2019 nine-month period was primarily the result of \$347 in net distributions to Alumina Limited (see Noncontrolling interest in Results of Operations above).

The source of cash in the 2018 nine-month period was primarily the result of \$553 in additions to debt, virtually all of which was related to \$492 in net proceeds from the issuance of new senior debt securities (see below) and \$60 in borrowings under an existing term loan by Alcoa of Australia, and \$23 in proceeds from employee exercises of 0.9 million legacy stock options at a weighted average exercise price of \$25.06 per share. These items were largely offset by \$457 in net distributions to Alumina Limited (see Noncontrolling interest in Results of Operations above) and \$105 in payments on debt, mostly related to the early repayment (\$94) of a majority of the remaining outstanding loans from Brazil's National Bank for Economic and Social Development associated with the construction of the Estreito hydroelectric power project.

In October 2019, Alcoa Norway ANS, a wholly-owned subsidiary of Alcoa Corporation, entered into a one-year, multicurrency revolving credit facility agreement for NOK 1.3 billion (approximately \$143) which is guaranteed on an unsecured basis by Alcoa Corporation. Additionally, in October 2019, a wholly-owned subsidiary of the Company entered into a \$120 three-year revolving credit facility agreement secured by certain customer receivables. Alcoa Corporation guarantees the performance obligations of the wholly-owned subsidiaries under the facility. These two facilities, along with our existing Revolving Credit Facility, provide the Company with additional liquidity options to utilize in the ordinary course of business.

In May 2018, Alcoa Nederland Holding B.V. (ANHBV), a wholly-owned subsidiary of Alcoa Corporation, completed a Rule 144A (U.S. Securities Act of 1933, as amended) debt offering for \$500 of 6.125% Senior Notes due 2028 (the "2028 Notes"). ANHBV received \$492 in net proceeds from the debt offering reflecting a discount to the initial purchasers of the 2028 Notes. The net proceeds, along with available cash on hand, were used to make discretionary contributions to certain U.S. defined benefit pension plans (see Cash from Operations above). The discount to the initial purchasers, as well as costs to complete the financing, was deferred and is being amortized to interest expense over the term of the 2028 Notes. Interest on the 2028 Notes is paid semi-annually in November and May. Additionally, the 2028 Notes are guaranteed on a senior unsecured basis by Alcoa Corporation and its subsidiaries that are guarantors under the Company's Amended Revolving Credit Agreement.

Alcoa Corporation's cost of borrowing and ability to access the capital markets are affected not only by market conditions but also by the short- and long-term debt ratings assigned to Alcoa Corporation's debt by the major credit rating agencies.

On May 1, 2019, Fitch Ratings (Fitch) reaffirmed a BB+ rating for Alcoa Corporation's long-term debt. Additionally, Fitch revised the current outlook to stable from positive.

Investing Activities

Cash used for investing activities was \$334 in the 2019 nine-month period compared with \$257 in the 2018 nine-month period, resulting in an increase in cash used of \$77.

In the 2019 nine-month period, the use of cash was largely attributable to \$245 in capital expenditures, composed of \$181 in sustaining projects and \$64 in return-seeking projects, and additions to investments of \$112, partially offset by proceeds from the sale of assets of \$23.

In the 2018 nine-month period, the use of cash was mainly due to \$251 in capital expenditures, composed of \$200 in sustaining and \$51 in return-seeking projects.

Recently Adopted and Recently Issued Accounting Guidance

See Note B to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

Dissemination of Company Information

Alcoa Corporation intends to make future announcements regarding company developments and financial performance through its website, www.alcoa.com, as well as through press releases, filings with the Securities and Exchange Commission, conference calls, and webcasts.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

See the Derivatives and Other Financial Instruments section of Note J to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

Item 4. Controls and Procedures.**(a) Evaluation of Disclosure Controls and Procedures**

Alcoa Corporation's Chief Executive Officer and Chief Financial Officer have evaluated the Company's disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the U.S. Securities Exchange Act of 1934, as amended, as of the end of the period covered by this report, and they have concluded that these controls and procedures are effective as of September 30, 2019.

(b) Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting during the third quarter of 2019, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II – OTHER INFORMATION

Item 4. Mine Safety Disclosures.

The information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of U.S. Securities and Exchange Commission Regulation S-K (17 CFR 229.104) is included in Exhibit 95.1 to this report.

Item 6. Exhibits.

- 10.1 [Amendment No. 1 dated as of August 16, 2019 to the Revolving Credit Agreement dated as of September 16, 2016, as amended as of October 26, 2016, as amended and restated as of November 14, 2017 and as amended and restated as of November 21, 2018, among Alcoa Corporation, Alcoa Nederland Holding B.V., the lenders and issuers from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent for the lenders and issuers \(filed herewith\)\(1\)](#)
- 10.2 [Terms and Conditions for Employee Restricted Share Units, effective October 1, 2019 \(filed herewith\)\(1\)](#)
- 10.3 [Terms and Conditions for Employee Stock Option Awards, effective October 1, 2019 \(filed herewith\)\(1\)](#)
- 10.4 [Terms and Conditions for Employee Special Retention Awards, effective October 1, 2019 \(filed herewith\)\(1\)](#)
- 10.5 [Amended and Restated Change in Control Severance Plan dated July 30, 2019 \(filed herewith\)\(1\)](#)
- 10.6 [Form of Amended and Restated Executive Severance Agreement for the Chief Executive Officer and the Chief Financial Officer, effective as of July 30, 2019 \(filed herewith\)\(1\)](#)
- 10.7 [Form of Amended and Restated Executive Severance Agreement for Corporate Officers, effective as of July 30, 2019 \(filed herewith\)\(1\)](#)
- 31.1 [Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
- 31.2 [Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
- 32.1 [Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 32.2 [Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 95.1 [Mine Safety Disclosure](#)
- 101.INS Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
- 101.SCH Inline XBRL Taxonomy Extension Schema Document
- 101.CAL Inline XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF Inline XBRL Taxonomy Extension Definition Linkbase Document
- 101.LAB Inline XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE Inline XBRL Taxonomy Extension Presentation Linkbase Document
- 104 Cover Page Interactive Data File (embedded within the Inline XBRL document)

(1) Certain appendices have been omitted pursuant to Item 601(a)(5) of Regulation S-K promulgated by the Securities and Exchange Commission (SEC). The Company agrees to furnish a supplemental copy of any omitted appendix to the SEC upon request.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Alcoa Corporation

October 31, 2019

Date

By /s/ WILLIAM F. OPLINGER

William F. Oplinger
Executive Vice President and
Chief Financial Officer
(Principal Financial Officer)

October 31, 2019

Date

By /s/ MOLLY S. BEERMAN

Molly S. Beerman
Vice President and Controller
(Principal Accounting Officer)

AMENDMENT NO. 1 dated as of August 16, 2019 (this “Agreement”) to the Revolving Credit Agreement dated as of September 16, 2016, as amended as of October 26, 2016, as amended and restated as of November 14, 2017 and as amended and restated as of November 21, 2018 (as further amended, supplemented or otherwise modified prior to the date hereof, the “Existing Credit Agreement”), among ALCOA CORPORATION, a Delaware corporation (“Holdings”), ALCOA NEDERLAND HOLDING B.V., a *besloten vennootschap met beperkte aansprakelijkheid* incorporated under the laws of the Netherlands (the “Borrower”), the several banks and other financial institutions or entities from time to time party as Lenders and Issuers thereto and JPMorgan Chase Bank, N.A. (the “Administrative Agent”) and the Guarantee Agreement dated as of November 1, 2016 (as further amended, supplemented or otherwise modified prior to the date hereof, the “Existing Guarantee Agreement”), among Holdings, the Borrower, the subsidiaries of Holdings from time to time party thereto and the Administrative Agent. Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Existing Credit Agreement, except as otherwise expressly set forth herein.

WHEREAS, the Borrower has notified the Administrative Agent that it wishes to migrate the legal jurisdiction of Alcoa Treasury S.à r.l., a Restricted Subsidiary of Holdings (the “Migration Entity”), from Luxembourg to Switzerland (the “Change of Jurisdiction”);

WHEREAS, the Borrower has requested that the Existing Credit Agreement and Existing Guarantee Agreement be amended as set forth herein to, among other things, permit the Change of Jurisdiction and that the Lenders consent to the Change of Jurisdiction;

WHEREAS, the Lenders party hereto (which constitute the Required Lenders under the Existing Credit Agreement) and the Administrative Agent are willing, subject to the terms and conditions set forth below, to amend the Existing Credit Agreement and the Existing Guarantee Agreement on the terms set forth herein (the Existing Credit Agreement, as so amended, is referred to as the “Amended Credit Agreement” and the Existing Guarantee Agreement, as so amended and restated, is referred to as the “Amended Guarantee Agreement”).

NOW, THEREFORE, in consideration of the mutual agreements herein contained and other good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, and subject to the conditions set forth herein, the parties hereto hereby agree as follows:

SECTION 1. Rules of Interpretation. The rules of interpretation set forth in Section 1.02(a) of the Amended Credit Agreement are hereby incorporated by reference herein, mutatis mutandis.

SECTION 2. Amendment to the Existing Credit Agreement. On the terms and subject to the conditions set forth herein, effective as of the Amendment No. 1 Effective Date, the Existing Credit Agreement is hereby amended as follows:

(a) Section 1.01 of the Existing Credit Agreement is hereby amended by inserting the following defined terms in the appropriate alphabetical order therein:

“BHC Act Affiliate” of a party shall mean an ‘affiliate’ (as such term is defined under, and interpreted in accordance with, 12 U.S.C. 1841(k)) of such party.

“Covered Entity” shall mean any of the following:

(i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b);

(ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or

(iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

“Covered Party” shall have the meaning assigned to it in Section 9.28.

“Default Right” shall have the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

“QFC” shall have the meaning assigned to the term “qualified financial contract” in, and shall be interpreted in accordance with, 12 U.S.C. 5390(c)(8)(D).

“QFC Credit Support” shall have the meaning assigned to it in Section 9.28.

“Supported QFC” shall have the meaning assigned to it in Section 9.28.

“Swiss Loan Party” shall have the meaning assigned to such term in Section 1.07(a).

“Swiss Security Documents” shall have the meaning assigned to such term in Section 8.01(h).

“U.S. Special Resolution Regime” shall have the meaning assigned to it in Section 9.28.

(b) The definition of “Specified Collateral Jurisdiction” in Section 1.01 of the Existing Credit Agreement is hereby amended and restated in its entirety as follows:

“Specified Collateral Jurisdiction” shall mean the United States, Australia, Brazil, Canada, Luxembourg, the Netherlands, Norway and Switzerland and, solely with respect to (a) pledges of Equity Interests in AWAC Parents, any other jurisdiction in which any AWAC Parent is organized and (b) security interests in and perfection actions with respect to any deposit account owned by a Loan Party (other than Excluded Deposit Accounts), the jurisdiction in which such deposit account is located or maintained.

(c) The definition of “Permitted Receivables Facility” in Section 1.01 of the Existing Credit Agreement is hereby amended and restated in its entirety as follows:

“Permitted Receivables Facility” shall mean the receivables facility or facilities created under the Permitted Receivables Facility Documents providing for the sale or pledge by Holdings, the Borrower and/or one or more other Receivables Sellers of Permitted Receivables Facility Assets (thereby providing financing to the Borrower and the Receivables Sellers) to the Receivables Entity (either directly or through another Receivables Seller) for fair market value (as determined in good faith by the Borrower), which in turn shall sell or pledge interests in the respective Permitted Receivables Facility Assets to third-party lenders or investors pursuant to the Permitted Receivables Facility Documents (with the Receivables Entity permitted to issue notes or other evidences of Indebtedness secured by Permitted Receivables Facility Assets or investor certificates, purchased interest certificates or other similar documentation evidencing interests in the Permitted Receivables Facility Assets) in return for the cash used by the Receivables Entity to purchase the Permitted Receivables Facility Assets from the Borrower and/or the respective Receivables Sellers or lent to the Borrower and/or the respective Receivables Sellers, in each case as more fully set forth in the Permitted Receivables Facility Documents.

(d) The definition of “Permitted Receivables Facility Assets” in Section 1.01 of the Existing Credit Agreement is hereby amended and restated in its entirety as follows:

“Permitted Receivables Facility Assets” shall mean (a) Receivables (whether now existing or arising in the future) of Holdings, the Borrower and the Restricted Subsidiaries which are transferred or pledged to the Receivables Entity pursuant to the Permitted Receivables Facility and any related Permitted Receivables Related Assets and all

proceeds thereof and (b) loans to Holdings, the Borrower and the Restricted Subsidiaries secured by Receivables (whether now existing or arising in the future) of Holdings, the Borrower and the Restricted Subsidiaries which are made pursuant to the Permitted Receivables Facility.

(e) The definition of “Receivables Entity” in Section 1.01 of the Existing Credit Agreement is hereby amended and restated in its entirety as follows:

“Receivables Entity” shall mean a wholly-owned (other than any equity or similar interest held by a third party for the purpose of making the Receivables Entity ‘bankruptcy remote’ from the Receivables Sellers and their Affiliates) Restricted Subsidiary of Holdings that engages in no activities other than in connection with the financing of Receivables of the Receivables Sellers and that is designated (as provided below) as the “Receivables Entity” and (a) no portion of the Indebtedness or any other obligations (contingent or otherwise) of which (i) is guaranteed by Holdings, the Borrower or any other Restricted Subsidiary other than another Receivables Entity (excluding Guarantees of obligations (other than the principal of, and interest on, Indebtedness) pursuant to Standard Securitization Undertakings), (ii) is recourse to or obligates Holdings, the Borrower or any other Restricted Subsidiary other than another Receivables Entity in any way (other than pursuant to Standard Securitization Undertakings) or (iii) subjects any property or asset of Holdings, the Borrower or any other Restricted Subsidiary other than another Receivables Entity, directly or indirectly, contingently or otherwise, to the satisfaction thereof, other than pursuant to Standard Securitization Undertakings, (b) with which neither Holdings, the Borrower nor any other Restricted Subsidiary has any contract, agreement, arrangement or understanding (other than pursuant to the Permitted Receivables Facility Documents (including with respect to fees payable in the ordinary course of business in connection with the servicing of accounts receivable and related assets)) on terms less favorable to the Borrower or such Restricted Subsidiary than those that might be obtained at the time from Persons that are not Affiliates of the Borrower (as determined by the Borrower in good faith), and (c) to which neither Holdings, the Borrower nor any other Restricted Subsidiary other than another Receivables Entity has any obligation to maintain or preserve such entity’s financial condition or cause such entity to achieve certain levels of operating results. Any such designation shall be evidenced to the Administrative Agent by filing with the Administrative Agent a certificate of a Financial Officer certifying that, to the best of such officer’s knowledge and belief after consultation with counsel, such designation complied with the foregoing conditions.

(f) Article I of the Existing Credit Agreement is hereby amended by inserting the following new section therein:

SECTION 1.07 Swiss Terms. (a) In this Agreement, where it relates to a Loan Party incorporated or established under the laws of Switzerland (a “Swiss Loan Party”), any reference to constitutional or organizational documents includes a copy of a certified excerpt from the commercial register, a copy of the certified up-to-date articles of association (evidencing, where relevant, the capacity to enter into obligations of an upstream or cross-stream nature) and, if applicable, a copy of the organizational regulations.

(b) In this Agreement, where it relates to a Swiss Loan Party, a reference to liquidation, bankruptcy, insolvency, reorganization, moratorium or any other proceeding under an applicable law means that such Swiss Loan Party is unable to or admits inability to pay its debts when due (*zahlungsunfähig*), is deemed to or declared to be unable to pay its debts, suspends or threatens to suspend making payments on any of its debts, is over indebted (*überschuldet*), or (i) has initiated against it, (ii) is legally obliged to initiate, or (iii) initiates: (A) bankruptcy proceedings (*Konkurs*), (B) proceedings leading to a provisional or a definitive composition moratorium (*provisorische oder definitive Nachlassstundung*), (C) proceedings leading to an emergency moratorium (*Notstundung*), (D) proceedings for a postponement of bankruptcy pursuant to article 725a of the Swiss Code of Obligations (*Konkursaufschub*) or (E) any proceedings pursuant to article 731b of the Swiss Code of Obligations which leads to its dissolution or liquidation, or any proceeding having similar effects in force at that time.

(g) Section 5.11 of the Existing Credit Agreement is hereby amended by inserting the following new paragraph (c)

therein:

(c) The Borrower will not use, and the Borrower shall procure that the Subsidiaries shall not use, the proceeds of any Loan in Switzerland unless (i) use in Switzerland is permitted under the Swiss taxation laws in force from time to time or (ii) it is confirmed in a tax ruling by the Swiss Federal Tax Administration that such use of proceeds is permitted, in each case, without payments in respect of the Loans becoming subject to withholding or deduction for Swiss withholding tax as a consequence of such use of proceeds in Switzerland.

(h) Section 6.01(a)(xix) of the Existing Credit Agreement is hereby amended and restated in its entirety as follows:

(xix) Indebtedness incurred pursuant to Permitted Receivables Facilities; provided that the Attributable Receivables Indebtedness thereunder shall not, together with the aggregate outstanding face amount of Receivables sold pursuant to Factoring Transactions under Section 6.05(c)(ii), exceed \$250,000,000 at any time outstanding;

(i) Section 6.05(c)(ii) of the Existing Credit Agreement is hereby amended and restated in its entirety as follows:

(ii) dispositions of Receivables pursuant to Factoring Transactions; provided that the aggregate outstanding face amount of Receivables so sold shall not, together with the Attributable Receivables Indebtedness incurred pursuant to Permitted Receivables Facilities under Section 6.01(a)(xix), exceed \$250,000,000 at any time outstanding;

therein: (j) Section 8.01 of the Existing Credit Agreement is hereby amended by inserting the following new paragraph (h)

(h) In connection with the Security Documents that are governed by Swiss law (the “Swiss Security Documents”) (i) with respect to security interests of an accessory nature (*akzessorisch*), each present and future Secured Party appoints and authorizes the Administrative Agent to act in the name and on behalf of the Secured Parties as their direct representative (*direkter Stellvertreter*) and (ii) with respect to security interests of a non-accessory nature (*nicht-akzessorisch*), each present and future Secured Party appoints and authorizes the Administrative Agent to act in its own name but on behalf and for the account of the Secured Parties as their indirect representative (*indirekter Stellvertreter*).

(k) Article IX of the Existing Credit Agreement is hereby amended by inserting the following new Section 9.28 immediately after Section 9.27:

SECTION 9.28. Acknowledgement Regarding Any Supported QFCs. To the extent that the Loan Documents provide support, through a guarantee or otherwise, for Hedging Agreements or any other agreement or instrument that is a QFC (such support, “QFC Credit Support” and each such QFC, a “Supported QFC”), the parties acknowledge and agree as follows with respect to the resolution power of the Federal Deposit Insurance Corporation under the Federal Deposit Insurance Act and Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (together with the regulations promulgated thereunder, the “U.S. Special Resolution Regime”) in respect of such Supported QFC and QFC Credit Support (with the provisions below applicable notwithstanding that the Loan Documents and any Supported QFC may in fact be stated to be governed by the laws of the State of New York and/or of the United States or any other state of the United States):

In the event a Covered Entity that is party to a Supported QFC (each, a “Covered Party”) becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer of such Supported QFC and the benefit of such QFC Credit Support (and any interest and obligation in or under such Supported QFC and such QFC Credit Support, and any rights in property

securing such Supported QFC or such QFC Credit Support) from such Covered Party will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if the Supported QFC and such QFC Credit Support (and any such interest, obligation and rights in property) were governed by the laws of the United States or a state of the United States. In the event a Covered Party or a BHC Act Affiliate of a Covered Party becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under the Loan Documents that might otherwise apply to such Supported QFC or any QFC Credit Support that may be exercised against such Covered Party are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if the Supported QFC and the Loan Documents were governed by the laws of the United States or a state of the United States. Without limitation of the foregoing, it is understood and agreed that rights and remedies of the parties with respect to a Defaulting Lender shall in no event affect the rights of any Covered Party with respect to a Supported QFC or any QFC Credit Support.

SECTION 3. Amendment to the Existing Guarantee Agreement. On the terms and subject to the conditions set forth herein, each of the Lenders party hereto agree to amend, and authorize the Administrative Agent to amend, the Existing Guarantee Agreement to delete the stricken text (indicated textually in the same manner as the following example: ~~stricken text~~) and to add the bold and double-underlined text (indicated textually in the same manner as the following example: **bold and double-underlined text**) as set forth on the pages of the Amended Guarantee Agreement attached as Annex A hereto.

SECTION 4. Consent to Change of Jurisdiction. (a) Notwithstanding anything to the contrary in Sections 5.07 or 6.03 of the Existing Credit Agreement and effective as of the Amendment No. 1 Effective Date (as defined below), the Administrative Agent and each Lender party hereto hereby consents to the Change of Jurisdiction; provided, however, that the consent set forth in this Section 4 shall cease to be effective unless the Migration Entity satisfies the requirements of Section 5.12 of the Amended Credit Agreement as if such Migration Entity were a newly formed Subsidiary and causes to be delivered to the Administrative Agent a legal opinion (addressed to the Administrative Agent and the Lenders) of Homburger AG, Swiss counsel for the Lenders, in form and substance reasonably satisfactory to the Administrative Agent, regarding the creation, perfection and enforceability of the security interests required in the satisfaction of the Collateral and Guarantee Requirement, in each case, within 180 days of the Amendment No. 1 Effective Date (or such longer period as the Administrative Agent, in its sole discretion, agrees to in writing). The consent set forth in this Section 4 shall be effective only in this specific instance and for the specific purposes set forth herein, and does not allow for any other or further departure from the terms and conditions of the Amended Credit Agreement or any other Loan Document, which terms and conditions shall continue in full force and effect. For the avoidance of doubt, nothing in this Amendment No. 1 (including Section 4 hereof) will be construed as an obligation of the Borrower or its Subsidiaries to consummate the Change of Jurisdiction.

(b) Notwithstanding anything to the contrary herein or in any other Loan Document, from and after the date that the Change of Jurisdiction is consummated but prior to the due execution of all relevant Security Documents contemplated by the definition of “Collateral and Guarantee Requirement” and completion of the relevant actions required to perfect the security interests as contemplated within such Security Documents, the Migration Entity shall not (i) engage to any material extent in any business other than businesses of the type conducted by the Migration Entity on the Amendment No. 1 Effective Date and businesses reasonably incidental, complementary or related thereto or (ii) incur any Indebtedness (other than Indebtedness under the Loan Documents and with any Restricted Subsidiary).

SECTION 5. Amendments to Grupiara Participacoes S.A. Security Documents. The Borrower and the Administrative Agent desire to amend the Share Fiduciary Transfer Agreement dated as of November 15, 2016, as amended as of November 14, 2017 and as amended as of November 21, 2018 (as further amended, supplemented or otherwise modified prior to the date hereof) and the other Security Documents related thereto (collectively, the “Grupiara Security Documents”) in order to cause the Grupiara Security Documents to be consistent with the Existing Credit Agreement and the other Loan Documents pursuant to Section 9.08(iv) of the Existing Credit Agreement (the “Grupiara Amendments”). Each of the Lenders party hereto agrees that it shall not object to the Grupiara Amendments and that the requirements of Section 9.08(iv) shall be deemed to be satisfied in respect of the Grupiara Amendments, and acknowledges that the Grupiara Amendments shall become effective on or after the Amendment No. 1 Effective Date in accordance therewith.

SECTION 6. Effectiveness of this Agreement. This Agreement, the amendment of the Existing Credit Agreement as set forth in Section 2 hereof and the amendment of the Existing Guarantee Agreement as set forth in Section 3 hereof shall become effective on the first date (the “Amendment No. 1 Effective Date”) on which each of the following conditions shall have been satisfied:

(a) The Administrative Agent shall have received counterparts of this Agreement that, when taken together, bear the signatures of Holdings, the Borrower, the Required Lenders (as such term is defined in the Existing Credit Agreement) and the Administrative Agent.

(b) The representations and warranties of each Loan Party set forth in the Loan Documents shall be true and correct in all material respects (or, in the case of representations and warranties qualified as to materiality, in all respects) on and as of the Amendment No. 1 Effective Date, except in the case of any such representation and warranty that expressly relates to a prior date, in which case such representation and warranty shall be true and correct in all material respects (or in all respects, as applicable) as of such earlier date.

(c) The Administrative Agent shall have received, at least one Business Day prior to the Amendment No. 1 Effective Date, all documentation and other information required by bank regulatory authorities under applicable “know your

customer” and anti-money laundering rules and regulations, including, without limitation, the USA PATRIOT Act and 31 C.F.R. § 1010.230 (the “Beneficial Ownership Regulation”), that has been requested at least ten Business Days prior to the Amendment No. 1 Effective Date.

(d) At the time of and immediately after giving effect to this Agreement, no Event of Default or Default shall have occurred and be continuing.

(e) The Administrative Agent shall have received all reasonable and documented out-of-pocket expenses in connection with this Agreement to the extent required under Section 9.05 of the Credit Agreement.

SECTION 7. Representations and Warranties. The Borrower represents and warrants to the Administrative Agent and to each of the Lenders:

(a) This Agreement has been duly authorized, executed and delivered by the Borrower, and each of this Agreement, the Amended Credit Agreement and the Amended Guarantee Agreement constitutes a legal, valid and binding obligation of the Borrower enforceable in accordance with its terms, except as limited by bankruptcy, insolvency or other similar laws of general application affecting the enforcement of creditors’ rights or by general principles of equity limiting the availability of equitable remedies.

(b) At the time of and immediately after giving effect to this Agreement, no Event of Default or Default has occurred and is continuing.

SECTION 8. Counterparts; Amendments. This Agreement may not be amended nor may any provision hereof be waived except pursuant to a writing signed by each of the parties hereto. This Agreement may be executed in two or more counterparts, each of which shall constitute an original but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Agreement by facsimile or other electronic transmission shall be effective as delivery of an original executed counterpart of this Agreement.

SECTION 9. Credit Agreement. (a) Except as expressly set forth herein, this Agreement (a) shall not by implication or otherwise limit, impair, constitute a waiver of or otherwise affect the rights and remedies of the Lenders, the Administrative Agent or the Borrower under the Existing Credit Agreement or any other Loan Document and (b) shall not alter, modify, amend or in any way affect any of the terms, conditions, obligations, covenants or agreements contained in the Existing Credit Agreement or any other Loan Document, all of which are ratified and affirmed in all respects and shall continue in full force and effect. Nothing herein shall be deemed to entitle the Borrower to any future consent to, or waiver, amendment, modification or other change of, any of the terms, conditions, obligations, covenants or agreements contained in the Existing Credit Agreement or any other Loan Document in similar or different circumstances. After the Amendment No. 1 Effective Date, any reference in the Loan Documents to the Credit Agreement shall mean the Credit Agreement as modified hereby and any reference

in the Loan Documents to the Guarantee Agreement shall mean the Guarantee Agreement as modified hereby. This Agreement shall constitute a “Loan Document” for all purposes of the Amended Credit Agreement and the other Loan Documents.

(b) For the avoidance of doubt, the parties hereto agree that, to the extent that any amendment made to the Existing Credit Agreement in accordance with Section 2 of this Agreement shall constitute a novation within the meaning of Article 1271 et seq. of the Luxembourg Civil Code, then, notwithstanding any such novation, all the rights (including in relation to Liens) of the Secured Parties against the Loan Parties shall be maintained in accordance with Article 1278 of the Luxembourg Civil Code.

SECTION 10. Applicable Law; Waiver of Jury Trial. (a) THIS AGREEMENT AND ANY CLAIM, CONTROVERSY, DISPUTE OR CAUSE OF ACTION (WHETHER IN CONTRACT OR TORT OR OTHERWISE) BASED UPON, ARISING OUT OF OR RELATING TO THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED HEREBY SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK WITHOUT REGARD TO ANY CONFLICT OF LAWS PRINCIPLES THEREOF THAT WOULD CALL FOR THE APPLICATION OF THE LAWS OF ANY OTHER JURISDICTION.

(b) EACH PARTY HERETO HEREBY AGREES AS SET FORTH IN SECTIONS 9.11 AND 9.15 OF THE EXISTING CREDIT AGREEMENT AS IF SUCH SECTION WERE SET FORTH IN FULL HEREIN.

(c) Notwithstanding paragraph (a) of this Section, if any Dutch Loan Party is represented by an attorney in connection with the signing and/or execution of this Agreement (including by way of accession to this Agreement), any other Loan Document, or any other agreement, deed or document referred to in, or made pursuant to, any Loan Document, it is hereby expressly acknowledged and accepted by the other parties to this Agreement that the existence and extent of the attorney's authority and the effects of the attorney's exercise or purported exercise of his or her authority shall be governed by the laws of the Netherlands.

SECTION 11. Notices. All notices hereunder shall be given in accordance with the provisions of Section 9.01 of the Amended Credit Agreement.

SECTION 12. Headings. The Section headings used herein are for convenience of reference only, are not part of this Agreement and are not to affect the construction of, or to be taken into consideration in interpreting, this Agreement.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their respective authorized officers as of the day and year first written above.

ALCOA CORPORATION

By /s/ Renato C.A. Bacchi
Name: Renato C.A. Bacchi
Title: Vice President and Treasurer

ALCOA NEDERLAND HOLDING B.V.

By /s/ Renato C.A. Bacchi
Name: Renato C.A. Bacchi
Title: Managing Director

JPMORGAN CHASE BANK, N.A., individually as a Lender and as
Administrative Agent

By

 /s/ James Shender
Name: James Shender
Title: Vice President

LENDERS

SIGNATURE PAGE TO AMENDMENT NO. 1, AMONG ALCOA CORPORATION, ALCOA NEDERLAND HOLDING B.V., THE LENDERS AND ISSUERS PARTY THERETO AND JPMORGAN CHAS. BANK, N.A., AS ADMINISTRATIVE AGENT

Name of Institution:

Citibank, N.A.

By

/s/ Millie Schild

Name: Millie Schild

Title: Vice President

[Amendment No. 1 Signature Page]

LENDERS

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Name of Institution:

CREDIT SUISSE AG,
CAYMAN ISLAND BRANCH

By

/s/ Judy Smith
Name: Judy Smith
Title: Authorized Signatory

For institutions that require a second signature:

By

/s/ Bastien Dayer
Name: Bastien Dayer
Title: Authorized Signatory

LENDERS

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Name of Institution:

Morgan Stanley Bank North America

By

/s/ Jack Kuhns

Name: Jack Kuhns

Title: Authorized Signatory

For institutions that require a second signature:

By

Name: _____

Title:

LENDERS

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Name of Institution:

ABN AMRO Capital USA LLC

By

/s/ Jamie Matos

Name: Jamie Matos

Title: Director

For institutions that require a second signature:

By

/s/ Vincent E. Lisanti

Name: Vincent E. Lisanti

Title: Managing Director

LENDERS

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Name of Institution:

BANCO BILBAO VIZCAYA ARGENTINA, S.A. NEW YORK BRANC

By

/s/ Javier Villarejo

Name: Javier Villarejo

Title: Head of Operations USA – Managing Director

For institutions that require a second signature:

By

/s/ Brian Crowley

Name: Brian Crowley

Title: Managing Director

[Amendment No. 1 Signature Page]

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Name of Institution:

Banco Bradesco S.A., New York Branch

By

/s/ Fabiana Paes de Barros

Name: Fabiana Paes de Barros

Title: Departmental Manager

For institutions that require a second signature:

By

/s/ Sonia Bettencourt

Name: Sonia Bettencourt

Title: Manager

LENDERS

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Name of Institution:

BANK OF AMERICA, N.A. as a Lender

By

/s/ Brandon Weiss

Name: Brandon Weiss

Title: Vice President

[Amendment No. 1 Signature Page]

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Name of Institution:

BNP PARIBAS

By

/s/ Raymond G. Dunnillo

Name: Raymond G. Dunnillo

Title: Managing Director

By

/s/ Mark Renaud

Name: Mark Renaud

Title: Managing Director

[Amendment No. 1 Signature Page]

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Name of Institution:

Deutsche Bank AG New York Branch

By

/s/ Yumi Okabe

Name: Yumi Okabe

Title: Vice President

By

/s/ Maria Guinchard

Name: Maria Guinchard

Title: Director

[Amendment No. 1 Signature Page]

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Name of Institution:

Goldman Sachs Bank USA

By

/s/ Jamie Minieri

Name: Jamie Minieri

Title: Authorized Signatory

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Name of Institution:

MUFG BANK, LTD.

By

/s/ Liwei Liu

Name: Liwei Liu

Title: Vice President

[Amendment No. 1 Signature Page]

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Name of Institution:

SUMITOMO MITSUI BANKING CORP

By

/s/ Michael Maguire

Name: Michael Maguire

Title: Executive Director

[Amendment No. 1 Signature Page]

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Name of Institution:

SunTrust Bank

By

/s/ Steve Curran

Name: Steve Curran

Title: Director

[Amendment No. 1 Signature Page]

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Name of Institution:

AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED

By

/s/ Robert Grillo

Name: Robert Grillo

Title: Director

[Amendment No. 1 Signature Page]

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Name of Institution:

The Bank of New York Mellon

By

/s/ Diane L. Demmler

Name: Diane L. Demmler

Title: Director

[Amendment No. 1 Signature Page]

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Name of Institution:

ING Bank N.V., Dublin Branch

By

/s/ Sean Hassett

Name: Sean Hassett

Title: Director

For institutions that require a second signature:

By

/s/ Padraig Matthews

Name: Padraig Matthews

Title: Director

[Amendment No. 1 Signature Page]

LENDERS

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Name of Institution:

PNC BANK, NATIONAL ASSOCIATION

By

/s/ Brett Schweikle

Name: Brett Schweikle

Title: Senior Vice President

[Amendment No. 1 Signature Page]

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Name of Institution:

Westpac Banking Corporation

By

/s/ Richard Yarnold

Name: Richard Yarnold

Title: Director

[Amendment No. 1 Signature Page]

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Name of Institution:

Bank of Montreal Ireland p.l.c.

By

/s/ Noel Reynolds

Name: Noel Reynolds

Title: Chief Financial Officer

For institutions that require a second signature:

By

/s/ Garrett Poynton

Name: Garrett Poynton

Title: CRO

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Name of Institution:

The Bank of Nova Scotia

By

/s/ Ian Stephenson

Name: Ian Stephenson

Title: Managing Director

For institutions that require a second signature:

By

/s/ Stephen MacNeil

Name: Stephen MacNeil

Title: Director

LENDERS

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Name of Institution:

Riyad Bank, Houston Agency

By

/s/ Michael Meiss

Name: Michael Meiss

Title: General Manager

For institutions that require a second signature:

By

/s/ Manny Cafeo

Name: Manny Cafeo

Title: Vice President, Operations Manager

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Name of Institution:

Royal Bank of Canada

By

/s/ Nathalie Richard

Name: Nathalie Richard

Title: Vice-President

[Amendment No. 1 Signature Page]

ALCOA CORPORATION
TERMS AND CONDITIONS FOR RESTRICTED SHARE UNITS

These terms and conditions, including Appendices attached hereto (the “Award Terms”), are authorized by the Compensation and Benefits Committee (the “Committee”) of the Board of Directors. They are deemed to be incorporated into and form a part of the Award of Restricted Share Units issued on or after October 1, 2019 under the Alcoa Corporation 2016 Stock Incentive Plan, as may be amended from time to time (the “Plan”).

Terms that are defined in the Plan have the same meanings in the Award Terms.

General Terms and Conditions

1. Restricted Share Units are subject to the provisions of the Plan and the provisions of the Award Terms. If the Plan and the Award Terms are inconsistent, the provisions of the Plan will govern. Interpretations of the Plan and the Award Terms by the Committee are binding on the Participant and the Company. A Restricted Share Unit is an undertaking by the Company to issue the number of Shares indicated in the Participant’s account with the Company’s designated stock plan broker or service provider (the “Broker”), subject to the fulfillment of certain conditions, except to the extent otherwise provided in the Plan or herein. A Participant has no voting rights or rights to receive dividends on Restricted Share Units, but the Board of Directors may authorize that dividend equivalents be accrued and paid on Restricted Share Units upon vesting in accordance with paragraphs 2 and 4 below.

Vesting and Payment

2. A Restricted Share Unit vests on the third anniversary date of the grant date and, subject to paragraph 3 and, if the Restricted Share Unit is subject to a performance condition, paragraph 3, will be paid to the Participant in Shares on the vesting date or within 90 days thereafter (or, if it is not practicable to make payment by such date, as soon as practicable thereafter, but in no event later than the end of the calendar year in which the vesting date occurs and/or later than the time permitted under Section 409A of the Code).

3. Notwithstanding the foregoing, except as provided in paragraph 4, if a Participant’s employment with the Company (including its Subsidiaries) is terminated before the Restricted Share Unit vests, the Award is forfeited and is automatically canceled.

4. The following are exceptions to the vesting rules:

- Death or Disability: a Restricted Share Unit held by a Participant, who dies while an Employee or who is permanently and totally disabled (as defined below) while an Employee, is not forfeited but vests and is paid on the original stated vesting date set forth in paragraph 2.

A Participant is deemed to be permanently and totally disabled if the Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. A Participant shall not be considered to be permanently and totally disabled unless the Participant furnishes proof of the existence thereof in such form and manner, and at such times, as the Company may require. In the event of a dispute, the determination whether a Participant is permanently and totally disabled will be made by the Committee or its delegate.

- Change in Control: a Restricted Share Unit vests if a Replacement Award is not provided following certain Change in Control events, as described in the Plan. Notwithstanding anything in the Award Terms to the contrary, if a Change in Control qualifies as a “change in control event” within the meaning of Treas. Reg. § 1.409-3(i)(5), the vested Restricted Share Unit (whether vested pursuant to the preceding sentence or otherwise and with vesting determined under Section 409A of the Code) will be paid to the Participant within 30 days following the Change in Control. If the Change in Control does not so qualify, the vested Restricted Share Unit will vest and be paid to the Participant on the original stated vesting date set forth in paragraph 2.
- Termination Following Change in Control: as further described in the Plan, if a Replacement Award is provided following a Change in Control, but within 24 months of such Change in Control the Participant’s employment is terminated without Cause (as defined in the Alcoa Corporation Change in Control Severance Plan) or by the Participant for Good Reason (as defined in the Alcoa Corporation Change in Control Severance Plan), the Replacement Award will vest and be paid to the Participant on the original stated vesting date set forth in paragraph 2.
- Retirement: unless otherwise determined by the Committee or its delegate, a Restricted Share Unit is not forfeited if it is held by a Participant who terminates employment due to Retirement (as defined in the Plan) at least six months after the grant date. In such event, the Restricted Share Unit vests and is paid on the original vesting schedule of the grant set forth in paragraph 2.
- Divestiture: if a Restricted Share Unit is held by a Participant who is to be terminated from employment with the Company or a Subsidiary as a result of a divestiture of a business or a portion of a business of the Company (each, a “Divestiture”) and the Participant either becomes an employee of (or is leased or seconded to) the entity acquiring the business on the date of the closing, or the Participant is not offered employment with the entity acquiring the business and is terminated by the Company or a Subsidiary within 90 days of the closing of the sale, then, at the discretion of the Chief Executive Officer of the Company, for Participants other than those subject to the short-swing profit rules of Section 16(b) of the Exchange Act (a “Section 16 Insider”), or, at the discretion of the Committee for Section 16 Insiders, as the case may be, the Restricted Share Unit will not be forfeited and will vest and be paid on the original vesting schedule set

forth in paragraph 2. For purposes of this paragraph, employment by “the entity acquiring the business” includes employment by a subsidiary or affiliate of the entity acquiring the business; and “Divestiture of a business” means the sale of assets or stock resulting in the sale of a going concern. “Divestiture of a business” does not include a plant shut down or other termination of a business.

- Involuntary Termination without Cause: in circumstances other than a Divestiture, if a Participant is involuntarily terminated without Cause (as defined below) from employment with the Company or a Subsidiary at least one year after the grant date and during the vesting period, the Restricted Share Unit Award is not forfeited in whole but only in part upon termination of employment. The portion of the Restricted Share Unit Award that is not forfeited vests on the original stated vesting date set forth in paragraph 2 and is calculated based on a proportionate share of the time during the vesting period that the Participant remained actively employed with the Company or a Subsidiary, with the remaining portion being automatically forfeited. The proportionate share is computed on the basis of the actual number of days actively employed after the date of grant over the total numbers of days in the three years vesting period (with the resulting Restricted Share Units rounded up to the next whole unit). For example, a Participant who is involuntarily terminated without Cause from employment with the Company (or a Subsidiary) at the end of the first year of the three-year vesting period will receive one-third of the Shares upon vesting, with the remaining two-thirds of the Shares being automatically forfeited upon termination.

For this purpose, if the Participant participates in the Alcoa Corporation Change in Control Severance Plan, “Cause” shall have the meaning set forth in such plan. If the Participant does not participate in the Alcoa Corporation Change in Control Severance Plan, “Cause” means (i) the willful and continued failure by the Participant to substantially perform the Participant’s duties with the Company or Subsidiary employer that has not been cured within 30 days after a written demand for substantial performance is delivered to the Participant by the Board or the Participant’s direct supervisor, which demand specifically identifies the manner in which the Participant has not substantially performed the Participant’s duties, (ii) the willful engaging by the Participant in conduct which is demonstrably and materially injurious to the Company or a Subsidiary, monetarily or otherwise; (iii) the Participant’s fraud or acts of dishonesty relating to the Company or any of its Subsidiaries, or (iv) the Participant’s conviction of any misdemeanor relating to the affairs of the Company or any of its Subsidiaries or indictment for any felony. For purposes of clauses (i) and (ii) of this definition, no act, or failure to act, on the Participant’s part shall be deemed “willful” unless done, or omitted to be done, by the Participant not in good faith and without reasonable belief that the Participant’s act, or failure to act, was in the best interest of the Company.

5. A Participant will receive one Share upon the vesting and payment of a Restricted Share Unit. Notwithstanding the foregoing or anything in the Award Terms to the contrary, to the extent that payment in Shares is prohibited under applicable law or would require the Participant

or the Company to obtain the approval of any governmental and/or regulatory body in the Participant's country, or as necessary to meet tax objectives, the Company in its sole discretion may substitute a cash payment in lieu of Shares, such cash payment to be equal to the Fair Market Value of the Shares on the date that such Shares would have otherwise been issued under the terms of the Plan and the Award Terms.

Taxes

6. All taxes required to be withheld under applicable tax laws in connection with a Restricted Share Units must be paid by the Participant at the appropriate time under applicable tax laws. The Company may satisfy applicable tax withholding obligations by any of the means set forth in Section 15(k) of the Plan, but will generally withhold from the Shares to be issued upon payment of the Restricted Share Units that number of Shares with a fair market value on the vesting date equal to the taxes required to be withheld at the minimum required rates, or at any other rate approved by the Committee, up to the maximum individual tax rate for the applicable tax jurisdiction, which include, for Participants subject to taxation in the United States, applicable income taxes, federal and state unemployment compensation taxes and FICA/FUTA taxes. Notwithstanding the foregoing, if the Participant is a Section 16 Insider, the Company will withhold Shares from the Shares to be issued upon payment of the Restricted Share Unit, as described herein, at the minimum required rates and will not use the other means set forth in the Plan.

Beneficiaries

7. If permitted by the Company, Participants will be entitled to designate one or more beneficiaries to receive all Restricted Share Units that have not yet vested at the time of death of the Participant. All beneficiary designations will be on beneficiary designation forms approved for the Plan. Copies of the form will generally be available from the Broker or may otherwise be obtained from the Company.

8. Beneficiary designations on an approved form will be effective at the time received by the Company, including, as applicable, through submission to the Broker. A Participant may revoke a beneficiary designation at any time by written notice to the Company, including as applicable, through submission to the Broker, or by filing a new designation form. Any designation form previously filed by a Participant will be automatically revoked and superseded by a later-filed form.

9. A Participant will be entitled to designate any number of beneficiaries on the form, and the beneficiaries may be natural or corporate persons.

10. The failure of any Participant to obtain any recommended signature on the form will not prohibit the Company from treating such designation as valid and effective. No beneficiary will acquire any beneficial or other interest in any Restricted Share Unit prior to the death of the Participant who designated such beneficiary.

11. Unless the Participant indicates on the form that a named beneficiary is to receive Restricted Share Units only upon the prior death of another named beneficiary, all beneficiaries designated on the form will be entitled to share equally in the Restricted Share Units upon

vesting. Unless otherwise indicated, all such beneficiaries will have an equal, undivided interest in all such Restricted Share Units.

12. Should a beneficiary die after the Participant but before the Restricted Share Units are paid, such beneficiary's rights and interest in the Award will be transferable by the beneficiary's last will and testament or by the laws of descent and distribution. A named beneficiary who predeceases the Participant will obtain no rights or interest in Restricted Share Units, nor will any person claiming on behalf of such individual. Unless otherwise specifically indicated by the Participant on the beneficiary designation form, beneficiaries designated by class (such as "children," "grandchildren" etc.) will be deemed to refer to the members of the class living at the time of the Participant's death, and all members of the class will be deemed to take "per capita."

13. If a Participant does not designate a beneficiary or if the Company does not permit a beneficiary designation, the Restricted Share Units that have not yet vested or been paid at the time of death of the Participant will be paid to the Participant's legal heirs pursuant to the Participant's last will and testament or by the laws of descent and distribution.

Adjustments

14. In the event of an Equity Restructuring or other transaction described in Section 4(f) of the Plan, the Committee will equitably adjust the Restricted Share Units as it deems appropriate in accordance with the terms of the Plan. The adjustments authorized by the Committee will be final and binding.

Repayment/Forfeiture

15. As an additional condition of receiving the Restricted Share Units, the Participant agrees that the Restricted Share Units and any benefits or proceeds the Participant may receive hereunder shall be subject to forfeiture and/or repayment to the Company as provided in Sections 15(e) and (f) of the Plan including, without, limitation, to the extent required (i) under the terms of any recoupment or "clawback" policy adopted by the Company to comply with applicable laws or with the Corporate Governance Guidelines or other similar requirements, as such policy may be amended from time to time (and such requirements shall be deemed incorporated into the Award Terms without the consent) or (ii) to comply with any requirements imposed under applicable laws and/or the rules and regulations of the securities exchange or inter-dealer quotation system on which the Shares are listed or quoted, including, without limitation, pursuant to Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Further, if the Participant receives any amount in excess of what the Participant should have received under the terms of the Restricted Share Units for any reason (including without limitation by reason of a financial restatement, mistake in calculations or administrative error), all as determined by the Committee, then the Participant shall be required to promptly repay any such excess amount to the Company. By accepting this Award, subject to applicable law, Participant agrees and acknowledges the obligation to cooperate with, and provide any and all assistance necessary to, the Company to recover or recoup this Award or amounts paid hereunder pursuant to this Section 15 and the Plan.

Miscellaneous Provisions

16. *Stock Exchange Requirements; Applicable Laws.* Notwithstanding anything to the contrary in the Award Terms, no Shares issuable upon vesting of the Restricted Share Units, and no certificate representing all or any part of such Shares, shall be issued or delivered if, in the opinion of counsel to the Company, such issuance or delivery would cause the Company to be in violation of, or to incur liability under, any securities law, or any rule, regulation or procedure of any U.S. national securities exchange upon which any securities of the Company are listed, or any listing agreement with any such securities exchange, or any other requirement of law or of any administrative or regulatory body having jurisdiction over the Company or a Subsidiary.
17. *Non-Transferability.* The Restricted Share Units are non-transferable and may not be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by the Participant other than by will or the laws of descent and distribution and any such purported assignment, alienation, pledge, attachment, sale, transfer or encumbrance shall be void and unenforceable against the Company; provided, that, the designation of a beneficiary shall not constitute an assignment, alienation, pledge, attachment, sale, transfer or encumbrance.
18. *Stockholder Rights.* No person or entity shall be entitled to vote, receive dividends or be deemed for any purpose the holder of any Shares until the Restricted Share Units shall have vested and been paid in the form of Shares in accordance with the provisions of the Award Terms.
19. *Notices.* Any notice required or permitted under the Award Terms shall be in writing and shall be deemed sufficient when delivered personally or sent by confirmed email, telegram, or fax or five days after being deposited in the mail, as certified or registered mail, with postage prepaid, and addressed to the Company at the Company's principal corporate offices or to the Participant at the address maintained for the Participant in the Company's records or, in either case, as subsequently modified by written notice to the other party.
20. *Severability and Judicial Modification.* If any provision of the Award Terms is held to be invalid or unenforceable under the applicable laws of any country, state, province, territory or other political subdivision or the Company elects not to enforce such restriction, the remaining provisions shall remain in full force and effect and the invalid or unenforceable provision shall be modified only to the extent necessary to render that provision valid and enforceable to the fullest extent permitted by law. If the invalid or unenforceable provision cannot be, or is not, modified, that provision shall be severed from the Award Terms and all other provisions shall remain valid and enforceable.
21. *Successors.* The Award Terms shall be binding upon and inure to the benefit of the Company and its successors and assigns, on the one hand, and the Participant and his or her heirs, beneficiaries, legatees and personal representatives, on the other hand.
22. *Appendices.* Notwithstanding any provisions in the Award Terms, for Participants residing and/or working outside the United States, the Restricted Share Units shall be subject to the additional terms and conditions set forth in Appendix A to the Award Terms and to any special terms and conditions for the Participant's country set forth in Appendix B to the Award

Terms. Further, Appendices C and D include information for European Union Participants. Moreover, if the Participant relocates outside the United States or relocates between the countries included in Appendix B, the additional terms and conditions set forth in Appendix A and the special terms and conditions for such country set forth in Appendices B, C and D will apply to the Participant, to the extent the Company determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Appendices constitute part of the Award Terms.

23. *Imposition of Other Requirements.* The Company reserves the right to impose other requirements on the Participant's participation in the Plan, on the Restricted Share Units and on any Shares acquired under the Plan, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require the Participant to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

24. *Compliance with Code Section 409A.* It is intended that the Restricted Share Units granted pursuant to the Award Terms be compliant with (or exempt from) Section 409A of the Code and the Award Terms shall be interpreted, construed and operated to reflect this intent. Notwithstanding the foregoing, the Award Terms and the Plan may be amended at any time, without the consent of any party, to the extent necessary or desirable to satisfy any of the requirements under Section 409A of the Code, but the Company shall not be under any obligation to make any such amendment. Further, the Company and its Subsidiaries do not make any representation to the Participant that the Restricted Share Units granted pursuant to the Award Terms satisfies the requirements of Section 409A of the Code, and the Company and its Subsidiaries will have no liability or other obligation to indemnify or hold harmless the Participant or any other party for any tax, additional tax, interest or penalties that the Participant or any other party may incur in the event that any provision of the Award Terms or any amendment or modification thereof or any other action taken with respect thereto, is deemed to violate any of the requirements of Section 409A of the Code.

25. *Waiver.* A waiver by the Company of breach of any provision of the Award Terms shall not operate or be construed as a waiver of any other provision of the Award Terms, or of any subsequent breach by the Participant or any other Participant.

26. *No Advice Regarding Award.* The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding the Participant's participation in the Plan, or the Participant's acquisition or sale of the underlying Shares. The Participant is hereby advised to consult with the Participant's own personal tax, legal and financial advisors regarding the Participant's participation in the Plan before taking any action related to the Plan.

27. *Governing Law and Venue.* As stated in the Plan, the Restricted Share Units and the provisions of the Award Terms and all determinations made and actions taken thereunder, to the extent not otherwise governed by the laws of the United States, shall be governed by the laws of the State of Delaware, United States of America, without reference to principles of conflict of laws, and construed accordingly. The jurisdiction and venue for any disputes arising under, or any actions brought to enforce (or otherwise relating to), the Restricted Share Units will be

exclusively in the courts in the State of Delaware, including the Federal Courts located therein (should Federal jurisdiction exist).

28. *Electronic Delivery and Acceptance.* The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means. The Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party designated by the Company.

29. *Entire Agreement.* The Award Terms and the Plan embody the entire understanding and agreement of the parties with respect to the subject matter hereof (including, without limitation, the obligations and understandings set forth in Section 15(e) of the Plan), and no promise, condition, representation or warranty, express or implied, not stated or incorporated by reference herein, shall bind either party hereto.

30. *Employment at Will.* Nothing in the Award Terms or the Plan provide the Participant with any right to continue in the Company's or any of its affiliates' employ for any period of specific duration or interfere with or otherwise restrict in any way the Participant's or the rights of the Company and its affiliates to terminate the Participant's service at any time for any reason, with or without cause, subject to applicable law. The Participant's status with the Company and its affiliates will accordingly remain at will.

31. *Amendments.* Except as otherwise provided herein or the Plan, these Award Terms may be amended or modified at any time by an instrument in writing signed by the parties hereto or by the Company without the consent of the Participant if such action would not materially impair the rights of the Participant under this Award.

Acceptance of Award

32. In accordance with Section 15(c) of the Plan (as in effect at the grant date), the Participant may reject the Restricted Share Units by notifying the Company within 30 days of the grant date that he or she does not accept the Restricted Share Units. The Participant's acceptance of the Restricted Share Units constitutes the Participant's acceptance of and agreement with the Award Terms. Notwithstanding the foregoing, if required by the Company, the Participant will provide a signed copy of the Award Terms in such manner and within such timeframe as may be requested by the Company. The Company has no obligation to issue Shares to the Participant if the Participant does not accept the Restricted Share Units.

Performance Feature

33. If the vesting of Restricted Share Units is subject to a performance condition, the following additional terms and conditions will apply to that Award:

- The Participant will have the right to receive from 0% to 200% of the number of Shares indicated on the grant date, based on achievement of performance goals established by the Committee for that Award.

- The performance period is three years, which may consist of a single performance period or multiple interim periods as determined by the Committee.
- Achievement of performance objectives will be determined or certified by the Committee following the end of the applicable period.
- Except as otherwise set forth in paragraph 4 of the Award Terms or below in this “Performance Feature” section, vesting of the Award will occur upon satisfaction of the time-based vesting conditions set forth in paragraph 2 of the Award Terms and vesting and payment of the Award will be based on the extent to which the performance objectives established by the Committee have been attained. In any case, except where payment of the Award is made upon a Change in Control within the meaning of Treas. Reg. § 1.409-3(i)(5), in no event will payment of the Award occur outside of the time period set forth in paragraph 2.
- In the event of termination of the Participant’s employment with the Company (including its Subsidiaries) before the vesting of the Restricted Share Units by reason of death, disability, Retirement, Divestiture, or involuntary termination without Cause, each as described in paragraph 4, payment of the Restricted Share Unit Award (or portion thereof in the case of an involuntary termination without Cause) will be based on the extent to which the performance objectives established by the Committee have been attained following the end of the performance period.
- In the event of a Change in Control, the performance feature of the Award will cease to apply and the Award will be converted into a time-based award in accordance with the formula set forth in Section 12(a)(v) of the Plan. The vesting and payment of such Award will then be governed in accordance with paragraph 4.

ALCOA CORPORATION

TERMS AND CONDITIONS FOR STOCK OPTION AWARDS

These terms and conditions, including Appendices attached hereto (the “Award Terms”), are authorized by the Compensation and Benefits Committee (the “Committee”) of the Board of Directors. They are deemed to be incorporated into and form a part of every Stock Option award issued on or after October 1, 2019 under the Alcoa Corporation 2016 Stock Incentive Plan, as may be amended from time to time (the “Plan”).

Terms that are defined in the Plan have the same meanings in the Award Terms.

General Terms and Conditions

1. Stock Option awards are subject to the terms and conditions set forth in the Participant’s account with the Company’s designated stock plan broker or service provider (the “Broker”), subject to the provisions of the Plan and the Award Terms. If the Plan and the Award Terms are inconsistent, the provisions of the Plan will govern. Interpretations of the Plan and the Award Terms by the Committee are binding on the Participant and the Company.
2. The exercise price (or option price) of a stock option is 100% of the fair market value per Share on the date of grant, unless the Participant’s account with the Broker specifies a higher exercise price.
3. The expiration date of a Stock Option is ten years after the date of grant.

Vesting and Exercisability

4. Stock Options vest as to one-third of the Award on the first anniversary of the grant date, as to one-third of the Award on the second anniversary of the grant date and as to one-third of the Award on the third anniversary of the grant date.
 5. Except as provided in paragraph 7, once vested, a Stock Option may be exercised until its expiration date, as long as the Participant remains an active employee of the Company or a Subsidiary. As an administrative matter, the vested portion of this Stock Option may be exercised only until the close of the New York Stock Exchange on the expiration date or such earlier termination date set forth in paragraph 7 or, if such date is not a business day on the New York Stock Exchange, the last business day before such date. Any later attempt to exercise the Stock Option will not be honored. The Participant is solely responsible for any election to exercise the Stock Option, and the Company has no obligation to provide notice to the Participant of any matter, including, but not limited to, the date the Stock Option terminates. Neither the Company nor any Subsidiary has any liability in the event of the Participant’s failure to timely exercise any vested Stock Option prior to its expiration.
 6. Except as provided in paragraph 7:
 - as a condition to exercise of a Stock Option, a Participant must remain an active employee of the Company or a Subsidiary until the date the option vests, and if a
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Stock Option vests as to some but not all Shares covered by the Award, the Participant must be an active employee on the date the relevant portion of the Award vests; and

- if the Participant's employment with the Company (including its Subsidiaries) terminates prior to the vesting date of the Stock Option (or relevant option portion), the Stock Option (or relevant option portion) is forfeited and is automatically canceled.

7. Notwithstanding anything contained herein to the contrary, the following are exceptions to the vesting and exercisability rules:

- Death or Disability: a Stock Option held by a Participant, who dies while an Employee or who is permanently and totally disabled (as defined below) while an Employee, is not forfeited but vests in accordance with the original vesting date. In the case of a Participant who dies while an Employee, any Stock Option that is vested must be exercised by a legal representative or beneficiary on the earlier of five years from the date of death or the original expiration date of the Stock Option. In the case of a Participant who is permanently and totally disabled while an Employee, any Stock Option that is vested must be exercised on the earlier of five years from the date of such disability or the original expiration date of the Stock Option.

A Participant is deemed to be permanently and totally disabled if the Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. A Participant shall not be considered to be permanently and totally disabled unless the Participant furnishes proof of the existence thereof in such form and manner, and at such times, as the Company may require. In the event of a dispute, the determination whether a Participant is permanently and totally disabled will be made by the Committee or its delegate.

- Change in Control: a Stock Option vests if a Replacement Award is not provided following certain Change in Control events, as described in the Plan.
- Retirement: a Stock Option is not forfeited if it is held by a Participant who terminates employment due to Retirement at least 6 months after the grant date, provided that such termination of employment is not for Cause (as such term is defined in the Alcoa Corporation Change in Control Severance Plan). In that event, any unvested portion of the Stock Option vests in accordance with the original vesting schedule of the grant, and any Stock Option that is vested will be exercisable until the earlier of five years from the date of Retirement or the original expiration date of the Stock Option.
- Divestiture: if a Stock Option is held by a Participant who is to be terminated from employment with the Company or a Subsidiary as a result of a divestiture of

a business or a portion of a business of the Company and the Participant either becomes an employee of (or is leased or seconded to) the entity acquiring the business on the date of the closing, or the Participant is not offered employment with the entity acquiring the business and is terminated by the Company or a Subsidiary within 90 days of the closing of the sale, then, at the discretion of the Chief Executive Officer of the Company, for Participants other than Section 16 Insiders (as defined below), or, at the discretion of the Committee for Section 16 Insiders, as the case may be:

- Any unvested portion of the Stock Option will continue to vest under the original vesting schedule and once vested, will be exercisable until the earlier of the original expiration date of the Stock Option or two years from the date the Participant's employment with the Company or a Subsidiary has been terminated; and
- Any vested portion of the Stock Option will remain exercisable until the earlier of the original expiration date of the Stock Option or two years from the date the Participant's employment with the Company or a Subsidiary has been terminated.

For purposes of this paragraph, employment by "the entity acquiring the business" includes employment by a subsidiary or affiliate of the entity acquiring the business; and "divestiture of a business" means the sale of assets or stock resulting in the sale of a going concern. "Divestiture of a business" does not include a plant shut down or other termination of a business.

- Termination of Employment: if a Stock Option is held by a Participant whose employment with the Company (including its Subsidiaries) is terminated for any reason other than those described above in this paragraph 7, any unvested Stock Options will be forfeited on the date of termination of employment and any vested Stock Options will remain exercisable for 90 days after the date employment is terminated.

If and to the extent that a Stock Option that was initially granted as an Incentive Stock Option and is exercised at a time that results in the failure of the Stock Option to qualify for the tax treatment afforded to incentive stock options under the Code, the Stock Option shall remain outstanding according to its terms as a non-qualified stock option.

Option Exercise and Payment of Exercise Price

8. A vested, exercisable option is exercised when a signed notification of exercise is received by the Company, including, as applicable, through submission to the Broker.
9. Payment in full of the exercise price of a Stock Option is due on the exercise date. Unless otherwise determined by the Company with respect to Participants residing and/or

working outside the United States (other than with respect to any such Participant who is a Section 16 Insider (as defined below)), payment of the option exercise price may be made:

- in cash (including a “broker-assisted cashless exercise” described in the next paragraph); or
- by the delivery or presentation of Shares that have an aggregate fair market value on the date of exercise, which, together with any cash payment, equals or exceeds the Stock Option exercise price.

10. A Participant may elect to pay the cash exercise price of the option through a “broker-assisted cashless exercise.” On or prior to the exercise date, the Participant must deliver the Participant’s instruction directing and obligating the Broker to (a) sell Shares (or a sufficient portion of the Shares) acquired upon exercise of the option and (b) remit to the Company a sufficient portion of the sale proceeds to pay the entire exercise price and any tax withholding resulting from the exercise. Such proceeds are due not later than the third trading day after the exercise date.

11. Shares owned by a Participant include (a) those registered in the Participant’s name (or registered jointly with another person), (b) those held in a brokerage account owned by the Participant individually or jointly with another person, and (c) those held in a trust, partnership, limited partnership or other entity for the benefit of the Participant individually (or for the benefit of the Participant jointly with another person). Notwithstanding the foregoing, Shares owned by a Participant do not include Shares held in any qualified plan, IRA or similar tax deferred arrangement or Shares that are otherwise subject to potential accounting limitations regarding their use in stock swap transactions. The Company may require verification or proof of ownership or length of ownership of any shares delivered in payment of the exercise price of an option.

Taxes

12. All taxes required to be withheld under applicable tax laws in connection with the Stock Option must be paid by the Participant immediately upon exercise (or at the time of any other relevant taxable event).

13. The Company may satisfy applicable tax withholding obligations by any of the means set forth in Section 15(k) of the Plan, except that the Company shall not have discretion to withhold Shares from any Shares deliverable upon exercise if the Participant is subject to the short-swing profit rules of Section 16(b) of the Exchange Act (a “Section 16 Insider”). Withholding taxes in the United States include applicable income taxes, federal and state unemployment compensation taxes and FICA/FUTA taxes.

14. The amount of taxes that may be paid by a Participant may be determined by applying the minimum rates or, to the extent approved by the Committee, up to the maximum individual tax rate for the applicable tax jurisdiction required by applicable tax regulations.

15. Notwithstanding any other provision of the Stock Option or the Plan, the Company shall not be obligated to guarantee any particular tax result for the Participant with respect to the Stock

Option and/or payment provided to the Participant hereunder, and the Participant shall be responsible for any taxes imposed on the Participant with respect to such award and/or payment. The Participant acknowledges that neither the Company nor any Subsidiary has made any representation or given any advice to the Participant with respect to taxes.

Beneficiaries

16. If permitted by the Company, Participants will be entitled to designate one or more beneficiaries to receive all Stock Options that are unexercised at the time of the Participant's death. All beneficiary designations will be on a beneficiary designation form approved for the Plan. Copies of the form will generally be available from the Broker or may otherwise be obtained from the Company.

17. Beneficiary designations on an approved form will be effective at the time received by the Company, including, as applicable, through submission to the Broker. A Participant may revoke a beneficiary designation at any time by written notice to the Company, including, as applicable, through submission to the Broker, or by filing a new designation form. Any designation form previously filed by a Participant will be automatically revoked and superseded by a later-filed form.

18. A Participant will be entitled to designate any number of beneficiaries on the form, and the beneficiaries may be natural or corporate persons.

19. The failure of any Participant to obtain any recommended signature on the form will not prohibit the Company from treating such designation as valid and effective. No beneficiary will acquire any beneficial or other interest in any Stock Option prior to the death of the Participant who designated such beneficiary.

20. Unless the Participant indicates on the form that a named beneficiary is to receive unexercised options only upon the prior death of another named beneficiary, all beneficiaries designated on the form will be entitled and required to join in the exercise of the option. Unless otherwise indicated, all such beneficiaries will have an equal, undivided interest in all such Stock Options.

21. Should a beneficiary die after the Participant but before the option is exercised, such beneficiary's rights and interest in the option award will be transferable by last will and testament of the beneficiary or the laws of descent and distribution. A named beneficiary who predeceases the Participant will obtain no rights or interest in a stock option award, nor will any person claiming on behalf of such individual. Unless otherwise specifically indicated by the Participant on the beneficiary designation form, beneficiaries designated by class (such as "children," "grandchildren" etc.) will be deemed to refer to the members of the class living at the time of the Participant's death, and all members of the class will be deemed to take "per capita."

22. If a Participant does not designate a beneficiary or if the Company does not permit a beneficiary designation, the Stock Options that are unexercised at the time of death of the Participant will be transferred to the Participant's legal heirs pursuant to the Participant's last will and testament or by the laws of descent and distribution and may be exercised by the legal heirs as set forth in paragraph 7.

Transferable Options

23. Upon approval of, and subject to such requirements as may be imposed by, the Company, vested Stock Options may be transferred to one or more immediate family members, individually or jointly. A trust, each of whose beneficiaries is the Participant or an immediate family member, will be deemed to be a family member for purposes of these rules.

24. Any permitted transfer of Stock Options shall be effective on the date written notice thereof, on a form approved for this purpose, is received. Copies of the form will generally be available from the Broker or may otherwise be obtained from the Company. As a condition to transfer, the Participant shall agree to remain responsible to pay the applicable taxes due in relation to the option. The Participant or the Participant's estate will be required to provide sufficient evidence of ability to pay such taxes upon the Company's request.

25. A transfer shall be irrevocable; no subsequent transfer by the transferee shall be effective. Notwithstanding the foregoing, a transferee shall be entitled to designate a beneficiary in accordance with the provisions of paragraphs 16 through 22 above. Except where a beneficiary has been designated, in the event of death of the transferee prior to option exercise, the transferee's option will be transferable by last will and testament or the laws of descent and distribution.

26. Except as modified by the provisions of paragraphs 23 through 25, all terms applicable to option exercises by Participants are applicable to exercises by transferees. The Plan administrator may make and publish additional rules applicable to exercises by transferees not inconsistent with these provisions.

Adjustments

27. In the event of an Equity Restructuring, or other transaction described in Section 4(f) of the Plan, the Committee will equitably adjust the Stock Option as it deems appropriate in accordance with the terms of the Plan. The adjustments authorized by the Committee will be final and binding.

Repayment/Forfeiture

28. As an additional condition of receiving the Stock Option, the Participant agrees that the Stock Option and any benefits or proceeds the Participant may receive hereunder shall be subject to forfeiture and/or repayment to the Company as provided in Sections 15(e) and (f) of the Plan including, without limitation, to the extent required (i) under the terms of any recoupment or "clawback" policy adopted by the Company to comply with applicable laws or with the Company's Corporate Governance Guidelines or other similar requirements, as such policy may be amended from time to time (and such requirements shall be deemed incorporated into the Award Terms without the Participant's consent) or (ii) to comply with any requirements imposed under applicable laws and/or the rules and regulations of the securities exchange or inter-dealer quotation system on which the Shares are listed or quoted, including, without limitation, pursuant to Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Further, if the Participant receives any amount in excess of what the Participant should have received under the terms of the Restricted Share Units for any reason (including without

limitation by reason of a financial restatement, mistake in calculations or administrative error), all as determined by the Committee, then the Participant shall be required to promptly repay any such excess amount to the Company. By accepting this Award, subject to applicable law, Participant agrees and acknowledges the obligation to cooperate with, and provide any and all assistance necessary to, the Company to recover or recoup this Award or amounts paid hereunder pursuant to this Section 15 and the Plan.

Miscellaneous Provisions

29. *Stock Exchange Requirements; Applicable Laws.* Notwithstanding anything to the contrary in the Award Terms, no Shares purchased upon exercise of the Stock Option, and no certificate representing all or any part of such Shares, shall be issued or delivered if, in the opinion of counsel to the Company, such issuance or delivery would cause the Company to be in violation of, or to incur liability under, any securities law, or any rule, regulation or procedure of any U.S. national securities exchange upon which any securities of the Company are listed, or any listing agreement with any such securities exchange, or any other requirement of law or of any administrative or regulatory body having jurisdiction over the Company or a Subsidiary.

30. *Stockholder Rights.* No person or entity shall be entitled to vote, receive dividends or be deemed for any purpose the holder of any Shares until the Stock Option shall have been duly exercised to purchase such Shares in accordance with the provisions of the Award Terms.

31. *Notices.* Any notice required or permitted under the Award Terms shall be in writing and shall be deemed sufficient when delivered personally or sent by confirmed email, telegram, or fax or five days after being deposited in the mail, as certified or registered mail, with postage prepaid, and addressed to the Company at the Company's principal corporate offices or to the Participant at the address maintained for the Participant in the Company's records or, in either case, as subsequently modified by written notice to the other party.

32. *Severability and Judicial Modification.* If any provision of the Award Terms is held to be invalid or unenforceable under the applicable laws of any country, state, province, territory or other political subdivision or the Company elects not to enforce such restriction, the remaining provisions shall remain in full force and effect and the invalid or unenforceable provision shall be modified only to the extent necessary to render that provision valid and enforceable to the fullest extent permitted by law. If the invalid or unenforceable provision cannot be, or is not, modified, that provision shall be severed from the Award Terms and all other provisions shall remain valid and enforceable.

33. *Successors.* The Award Terms shall be binding upon and inure to the benefit of the Company and its successors and assigns, on the one hand, and the Participant and his or her heirs, beneficiaries, legatees and personal representatives, on the other hand.

34. *Appendices.* Notwithstanding any provisions in the Award Terms, for Participants residing and/or working outside the United States, the Stock Option shall be subject to the additional terms and conditions set forth in Appendix A to the Award Terms and to any special terms and conditions for the Participant's country set forth in Appendix B to the Award Terms. Further, Appendices C and D include information for European Union Participants. Moreover, if

the Participant relocates outside the United States or relocates between the countries included in Appendix B, the additional terms and conditions set forth in Appendices B, C and D will apply to the Participant, to the extent the Company determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Appendices constitutes part of the Award Terms.

35. *Imposition of Other Requirements.* The Company reserves the right to impose other requirements on the Participant's participation in the Plan, on the Stock Option and on any Shares acquired under the Plan, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require the Participant to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

36. *Waiver.* A waiver by the Company of breach of any provision of the Award Terms shall not operate or be construed as a waiver of any other provision of the Award Terms, or of any subsequent breach by the Participant or any other Participant.

37. *No Advice Regarding Award.* The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding the Participant's participation in the Plan, or the Participant's acquisition or sale of the underlying Shares. The Participant is hereby advised to consult with the Participant's own personal tax, legal and financial advisors regarding the Participant's participation in the Plan before taking any action related to the Plan.

38. *Governing Law and Venue.* As stated in the Plan, the Stock Option and the provisions of the Award Terms and all determinations made and actions taken thereunder, to the extent not otherwise governed by the laws of the United States, shall be governed by the laws of the State of Delaware, United States of America, without reference to principles of conflict of laws, and construed accordingly. The jurisdiction and venue for any disputes arising under, or any actions brought to enforce (or otherwise relating to), the Stock Option will be exclusively in the courts in the State of Delaware, including the Federal Courts located therein (should Federal jurisdiction exist).

39. *Electronic Delivery and Acceptance.* The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means. The Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party designated by the Company.

40. *Entire Agreement.* The Award Terms and the Plan embody the entire understanding and agreement of the parties with respect to the subject matter hereof (including, without limitation, the obligations and understandings set forth in Section 15(e) of the Plan), and no promise, condition, representation or warranty, express or implied, not stated or incorporated by reference herein, shall bind either party hereto.

41. *Section 409A.* The Stock Option is intended to be excepted from coverage under Section 409A of the Code ("Section 409A") and shall be administered, interpreted and construed accordingly. The Company may, in its sole discretion and without the Participant's consent,

modify or amend these Award Terms, impose conditions on the timing and effectiveness of the exercise of the Stock Option by the Participant, or take any other action it deems necessary or advisable, to cause the Stock Option to be excepted from Section 409A (or to comply therewith to the extent the Company determines it is not excepted). Notwithstanding the foregoing, the Participant recognizes and acknowledges that Section 409A may impose upon the Participant certain taxes or interest charges for which the Participant is and shall remain solely responsible.

42. *Employment at Will.* Nothing in the Award Terms or the Plan provide the Participant with any right to continue in the Company's or any of its affiliates' employ for any period of specific duration or interfere with or otherwise restrict in any way the Participant's or the rights of the Company and its affiliates to terminate the Participant's service at any time for any reason, with or without cause, subject to applicable law. The Participant's status with the Company and its affiliates will accordingly remain at will.

43. *Amendments.* Except as otherwise provided herein or the Plan, these Award Terms may be amended or modified at any time by an instrument in writing signed by the parties hereto or by the Company without the consent of the Participant if such action would not materially impair the rights of the Participant under this Award.

Acceptance of Award

44. In accordance with Section 15(c) of the Plan (as in effect at the grant date), the Participant may reject the Stock Option by notifying the Company within 30 days of the grant date that he or she does not accept the Stock Option. The Participant's acceptance of the Stock Option constitutes the Participant's acceptance of and agreement with the Award Terms. Notwithstanding the foregoing, if required by the Company, the Participant will provide a signed copy of the Award Terms in such manner and within such timeframe as may be requested by the Company. The Company has no obligation to issue Shares to the Participant if the Participant does not accept the Stock Option.

**ALCOA CORPORATION
TERMS AND CONDITIONS FOR
SPECIAL RETENTION AWARDS
(RESTRICTED SHARE UNITS)**

These terms and conditions, including Appendices attached hereto (the “Award Terms”), are authorized by the Compensation and Benefits Committee (the “Committee”) of the Board of Directors. They are deemed to be incorporated into and form a part of every special retention Award (“Special Retention Award”) issued on or after October 1, 2019 under the Alcoa Corporation 2016 Stock Incentive Plan, as may be amended from time to time (the “Plan”).

Terms that are defined in the Plan have the same meanings in the Award Terms.

General Terms and Conditions

1. Special Retention Awards are subject to the provisions of the Plan and the provisions of the Award Terms. If the Plan and the Award Terms are inconsistent, the provisions of the Plan will govern. Interpretations of the Plan and the Award Terms by the Committee are binding on the Participant and the Company. A Special Retention Award is an undertaking by the Company to issue the number of Shares indicated in the notice of the Special Retention Award on the date the Special Retention Award vests, subject to the fulfilment of certain conditions, except to the extent otherwise provided in the Plan or herein.

Vesting and Payment

2. A Special Retention Award vests on the third anniversary date of the grant date, and, subject to paragraph 3, will be paid to the Participant in Shares on the vesting date or within 90 days thereafter (or, if it is not practicable to make payment by such date, as soon as practicable thereafter, but in no event later than the end of the calendar year in which the vesting date occurs and/or later than the time permitted under Section 409A of the Code).
 3. Notwithstanding the foregoing, as a condition to a Special Retention Award vesting, a Participant must remain an active employee of the Company or a Subsidiary through the date of vesting. Except as provided in paragraph 5, if a Participant’s employment with the Company (including its Subsidiaries) is terminated prior to the vesting date of the Special Retention Award, the Special Retention Award is forfeited and is automatically cancelled.
 4. Special Retention Awards will be paid by the issuance to the Participant of Shares covered by the Special Retention Award. Prior to issuance of the Shares, the Participant has no voting rights. A Participant will receive one Share upon the vesting and payment of a Restricted Share Unit. Notwithstanding the foregoing or anything in the Award Terms to the contrary, to the extent that payment in Shares is prohibited under applicable law or would require the Participant or the Company to obtain the approval of any governmental and/or regulatory body in the Participant’s country, or as necessary to meet tax objectives, the Company in its sole discretion may substitute a cash payment in lieu of Shares, such cash payment to be equal to the Fair Market Value of the Shares on the date that such Shares would have otherwise been issued under the terms of the Plan and the Award Terms. Dividend equivalents will accrue on Special Retention Awards, unless the Committee determines that no dividend equivalents may be accrued or paid. Dividend equivalents that accrue on Special Retention Awards will be equal to the common stock dividend per Share payable on the Company’s common stock multiplied by the number of Shares covered by the Special Retention Award. Notwithstanding any provision herein to the contrary, no dividends or dividend equivalents will be paid on Special Retention Awards that have not vested. Payment of any dividend equivalents will be made in accordance with paragraph 2.
 5. The following are exceptions to the vesting rules:
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- Involuntary Termination without Cause: An unvested Special Retention Award held by a Participant who is involuntarily terminated without Cause (as defined below) from employment with the Company or a Subsidiary during the vesting period is not forfeited in whole but only in part upon termination of employment. The portion of the Special Retention Award that is not forfeited vests on the original stated vesting date set forth in paragraph 2 and is calculated based on a proportionate share of the time during the vesting period that the Participant remained actively employed with the Company or a Subsidiary, with the remaining portion being automatically forfeited. The proportionate share is computed on the basis of the actual number of days actively employed after the date of grant over the total number of days in the three-year vesting period (with the resulting Restricted Share Units rounded up to the next whole unit). For example, a Participant who is involuntarily terminated without Cause from employment with the Company (or a Subsidiary) at the end of the first year of the three-year vesting period will receive one-third of the Shares upon vesting, with the remaining two-thirds of the Shares being automatically forfeited upon termination.

For this purpose, if the Participant participates in the Alcoa Corporation Change in Control Severance Plan, “Cause” shall have the meaning set forth in such plan. If the Participant does not participate in the Alcoa Corporation Change in Control Severance Plan, “Cause” means (i) the willful and continued failure by the Participant to substantially perform the Participant’s duties with the Employer that has not been cured within thirty (30) days after a written demand for substantial performance is delivered to the Participant by the Board or the Participant’s direct supervisor, which demand specifically identifies the manner in which the Participant has not substantially performed the Participant’s duties, (ii) the willful engaging by the Participant in conduct which is demonstrably and materially injurious to the Company or a Subsidiary, monetarily or otherwise; (iii) the Participant’s fraud or acts of dishonesty relating to the Company or any of its Subsidiaries, or (iv) the Participant’s conviction of any misdemeanor relating to the affairs of the Company or any of its Subsidiaries or indictment for any felony. For purposes of clauses (i) and (ii) of this definition, no act, or failure to act, on the Participant’s part shall be deemed “willful” unless done, or omitted to be done, by the Participant not in good faith and without reasonable belief that the Participant’s act, or failure to act, was in the best interest of the Company.

- Death or Disability: An unvested Special Retention Award held by a Participant, who dies while an employee or who is permanently and totally disabled (as defined below) while an employee, is not forfeited but vests on the original stated vesting date set forth in paragraph 2.

A Participant is deemed to be permanently and totally disabled if the Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. A Participant shall not be considered to be permanently and totally disabled unless the Participant furnishes proof of the existence thereof in such form and manner, and at such times, as the Company may require. In the event of a dispute, the determination whether a Participant is permanently and totally disabled will be made by the Committee or its delegate.

- Change in Control: A Special Retention Award vests if a Replacement Award is not provided following certain Change in Control events, as described in the Plan. Notwithstanding anything in the Award Terms to the contrary, if a Change in Control qualifies as a “change in control event” within the meaning of Treas. Reg. § 1.409-3(i)(5), the vested Special Retention Award (whether vested pursuant to the preceding sentence or otherwise and with vesting determined under Section 409A of the Code) will be paid to the Participant within 30 days following the Change in Control. If the Change in Control does not so qualify, the vested Special Retention Award will be paid to the Participant on the original stated vesting date set forth in paragraph 2.
- Termination Following Change in Control: As further described in the Plan, if a Replacement Award is provided following a Change in Control, but within 24 months of such Change in Control the Participant’s employment is terminated without Cause (as defined in the Alcoa Corporation Change

in Control Severance Plan) or by the Participant for Good Reason (as defined in the Alcoa Corporation Change in Control Severance Plan), such award will vest and will be paid to the Participant on the original stated vesting date set forth in paragraph 2.

Taxes

6. All taxes required to be withheld under applicable tax laws in connection with a Special Retention Award must be paid by the Participant at the appropriate time under applicable tax laws. The Company may satisfy applicable tax withholding obligations by any of the means set forth in Section 15(k) of the Plan, but will generally withhold from the Shares to be issued upon payment of the Special Retention Award that number of Shares with a fair market value on the vesting date equal to the taxes required to be withheld at the minimum required rates, or at any other rate approved by the Committee, up to the maximum individual tax rate for the applicable tax jurisdiction, which include, for Participants subject to taxation in the United States, applicable income taxes, federal and state unemployment compensation taxes and FICA/FUTA taxes. Notwithstanding the foregoing, if the Participant is subject to the short-swing profit rules of Section 16(b) of the Exchange Act, the Company will withhold Shares from the Shares to be issued upon payment of the Special Retention Award, as described herein, at the minimum required rates and will not use the other means set forth in the Plan to satisfy such withholding tax obligations.

Beneficiaries

7. If permitted by the Company, Participants will be entitled to designate one or more beneficiaries to receive all Special Retention Awards that have not yet vested at the time of death of the Participant. All beneficiary designations will be on beneficiary designation forms approved for the Plan. Copies of the form will generally be available from the Company's designated stock plan broker or service provider (the "Broker") or may otherwise be obtained from the Company.
8. Beneficiary designations on an approved form will be effective at the time received by the Company, including, as applicable, through submission to the Broker. A Participant may revoke a beneficiary designation at any time by written notice to the Company, including as applicable, through submission to the Broker, or by filing a new designation form. Any designation form previously filed by a Participant will be automatically revoked and superseded by a later-filed form.
9. A Participant will be entitled to designate any number of beneficiaries on the form, and the beneficiaries may be natural or corporate persons.
10. The failure of any Participant to obtain any recommended signature on the form will not prohibit the Company from treating such designation as valid and effective. No beneficiary will acquire any beneficial or other interest in any Special Retention Award prior to the death of the Participant who designated such beneficiary.
11. Unless the Participant indicates on the form that a named beneficiary is to receive Special Retention Awards only upon the prior death of another named beneficiary, all beneficiaries designated on the form will be entitled to share equally in the Special Retention Awards upon vesting. Unless otherwise indicated, all such beneficiaries will have an equal, undivided interest in all such Special Retention Awards.
12. Should a beneficiary die after the Participant but before the Special Retention Award is paid, such beneficiary's rights and interest in the Special Retention Award will be transferable by the beneficiary's last will and testament or by the laws of descent and distribution. A named beneficiary who predeceases the Participant will obtain no rights or interest in a Special Retention Award, nor will any person claiming on behalf of such individual. Unless otherwise specifically indicated by the Participant on the beneficiary designation form, beneficiaries designated by class (such as "children," "grandchildren" etc.) will be deemed to refer to the members of the class living at the time of the Participant's death, and all members of the class will be deemed to take "per capita."

13. If a Participant does not designate a beneficiary or if the Company does not permit a beneficiary designation, the Special Retention Award that has not yet vested or been paid at the time of death of the Participant will vest and be paid to the Participant's legal heirs pursuant to the Participant's last will and testament or by the laws of descent and distribution.

Adjustments

14. In the event of an Equity Restructuring or other transaction described in Section 4(f) of the Plan, the Committee will equitably adjust the Special Retention Award as it deems appropriate in accordance with the terms of the Plan. The adjustments authorized by the Committee will be final and binding.

Repayment/Forfeiture

15. As an additional condition of receiving the Special Retention Award, the Participant agrees that the Special Retention Award and any benefits or proceeds the Participant may receive hereunder shall be subject to forfeiture and/or repayment to the Company as provided in Sections 15(e) and (f) of the Plan including, without limitation, to the extent required (i) under the terms of any recoupment or "clawback" policy adopted by the Company to comply with applicable laws or with the Company's Corporate Governance Guidelines or other similar requirements, as such policy may be amended from time to time (and such requirements shall be deemed incorporated into the Award Terms without the Participant's consent) or (ii) to comply with any requirements imposed under applicable laws and/or the rules and regulations of the securities exchange or inter-dealer quotation system on which the Shares are listed or quoted, including, without limitation, pursuant to Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Further, if the Participant receives any amount in excess of what the Participant should have received under the terms of the Special Retention Award for any reason (including without limitation by reason of a financial restatement, mistake in calculations or administrative error), all as determined by the Committee, then the Participant shall be required to promptly repay any such excess amount to the Company. By accepting this Award, subject to applicable law, Participant agrees and acknowledges the obligation to cooperate with, and provide any and all assistance necessary to, the Company to recover or recoup this Award or amounts paid hereunder pursuant to this Section 15 and the Plan.

Miscellaneous Provisions

16. *Stock Exchange Requirements; Applicable Laws.* Notwithstanding anything to the contrary in the Award Terms, no Shares issuable upon vesting of the Special Retention Awards, and no certificate representing all or any part of such Shares, shall be issued or delivered if, in the opinion of counsel to the Company, such issuance or delivery would cause the Company to be in violation of, or to incur liability under, any securities law, or any rule, regulation or procedure of any U.S. national securities exchange upon which any securities of the Company are listed, or any listing agreement with any such securities exchange, or any other requirement of law or of any administrative or regulatory body having jurisdiction over the Company or a Subsidiary.
17. *Non-Transferability.* The Special Retention Awards are non-transferable and may not be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by the Participant other than by will or the laws of descent and distribution and any such purported assignment, alienation, pledge, attachment, sale, transfer or encumbrance shall be void and unenforceable against the Company; provided, that, the designation of a beneficiary shall not constitute an assignment, alienation, pledge, attachment, sale, transfer or encumbrance.
18. *Stockholder Rights.* No person or entity shall be entitled to vote, receive dividends or be deemed for any purpose the holder of any Shares until the Special Retention Award shall have vested and been paid in the form of Shares in accordance with the provisions of the Award Terms.
19. *Notices.* Any notice required or permitted under the Award Terms shall be in writing and shall be deemed sufficient when delivered personally or sent by confirmed email, telegram, or fax or five days after being

deposited in the mail, as certified or registered mail, with postage prepaid, and addressed to the Company at the Company's principal corporate offices or to the Participant at the address maintained for the Participant in the Company's records or, in either case, as subsequently modified by written notice to the other party.

20. *Severability and Judicial Modification.* If any provision of the Award Terms is held to be invalid or unenforceable under the applicable laws of any country, state, province, territory or other political subdivision or the Company elects not to enforce such restriction, the remaining provisions shall remain in full force and effect and the invalid or unenforceable provision shall be modified only to the extent necessary to render that provision valid and enforceable to the fullest extent permitted by law. If the invalid or unenforceable provision cannot be, or is not, modified, that provision shall be severed from the Award Terms and all other provisions shall remain valid and enforceable.
21. *Successors.* The Award Terms shall be binding upon and inure to the benefit of the Company and its successors and assigns, on the one hand, and the Participant and his or her heirs, beneficiaries, legatees and personal representatives, on the other hand.
22. *Appendices.* Notwithstanding any provisions in the Award Terms, for Participants residing and/or working outside the United States, the Special Retention Award shall be subject to the additional terms and conditions set forth in Appendix A to the Award Terms and to any special terms and conditions for the Participant's country set forth in Appendix B to the Award Terms. Further, Appendices C and D include information for European Union Participants. Moreover, if the Participant relocates outside the United States or relocates between the countries included in Appendix B, the additional terms and conditions set forth in Appendix A and the special terms and conditions for such country set forth in Appendices B, C and D will apply to the Participant, to the extent the Company determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Appendices constitute part of the Award Terms.
23. *Imposition of Other Requirements.* The Company reserves the right to impose other requirements on the Participant's participation in the Plan, on the Special Retention Award and on any Shares acquired under the Plan, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require the Participant to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.
24. *Compliance with Code Section 409A.* It is intended that the Special Retention Award granted pursuant to the Award Terms be compliant with (or exempt from) Section 409A of the Code and the Award Terms shall be interpreted, construed and operated to reflect this intent. Notwithstanding the foregoing, the Award Terms and the Plan may be amended at any time, without the consent of any party, to the extent necessary or desirable to satisfy any of the requirements under Section 409A of the Code, but the Company shall not be under any obligation to make any such amendment. Further, the Company and its Subsidiaries do not make any representation to the Participant that the Special Retention Award granted pursuant to the Award Terms satisfies the requirements of Section 409A of the Code, and the Company and its Subsidiaries will have no liability or other obligation to indemnify or hold harmless the Participant or any other party for any tax, additional tax, interest or penalties that the Participant or any other party may incur in the event that any provision of the Award Terms or any amendment or modification thereof or any other action taken with respect thereto, is deemed to violate any of the requirements of Section 409A of the Code.
25. *Waiver.* A waiver by the Company of breach of any provision of the Award Terms shall not operate or be construed as a waiver of any other provision of the Award Terms, or of any subsequent breach by the Participant or any other Participant.
26. *No Advice Regarding Award.* The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding the Participant's participation in the Plan, or the Participant's acquisition or sale of the underlying Shares. The Participant is hereby advised to consult with the Participant's own personal tax, legal and financial advisors regarding the Participant's participation in the Plan before taking any action related to the Plan.

27. *Governing Law and Venue.* As stated in the Plan, the Special Retention Award and the provisions of the Award Terms and all determinations made and actions taken thereunder, to the extent not otherwise governed by the laws of the United States, shall be governed by the laws of the State of Delaware, United States of America, without reference to principles of conflict of laws, and construed accordingly. The jurisdiction and venue for any disputes arising under, or any actions brought to enforce (or otherwise relating to), the Special Retention Award will be exclusively in the courts in the State of Delaware, including the Federal Courts located therein (should Federal jurisdiction exist).
28. *Electronic Delivery and Acceptance.* The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means. The Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party designated by the Company.
29. *Entire Agreement.* The Award Terms and the Plan embody the entire understanding and agreement of the parties with respect to the subject matter hereof (including, without limitation, the obligations and understandings set forth in Section 15(e) of the Plan), and no promise, condition, representation or warranty, express or implied, not stated or incorporated by reference herein, shall bind either party hereto.
30. *Employment at Will.* Nothing in the Award Terms or the Plan provide the Participant with any right to continue in the Company's or any of its affiliates' employ for any period of specific duration or interfere with or otherwise restrict in any way the Participant's or the rights of the Company and its affiliates to terminate the Participant's service at any time for any reason, with or without cause, subject to applicable law. The Participant's status with the Company and its affiliates will accordingly remain at will.
31. *Amendments.* Except as otherwise provided herein or the Plan, these Award Terms may be amended or modified at any time by an instrument in writing signed by the parties hereto or by the Company without the consent of the Participant if such action would not materially impair the rights of the Participant under this Award.

Acceptance of Award

32. In accordance with Section 15(c) of the Plan (as in effect at the grant date), the Participant may reject the Special Retention Award by notifying the Company within 30 days of the grant date that he or she does not accept the Special Retention Award. The Participant's acceptance of the Special Retention Award constitutes the Participant's acceptance of and agreement with the Award Terms. Notwithstanding the foregoing, if required by the Company, the Participant will provide a signed copy of the Award Terms in such manner and within such timeframe as may be requested by the Company. The Company has no obligation to issue Shares to the Participant if the Participant does not accept the Special Retention Award.

**ALCOA CORPORATION
AMENDED AND RESTATED CHANGE IN CONTROL
SEVERANCE PLAN**

The Company hereby adopts, as of July 30, 2019, an amendment and restatement of the Alcoa Corporation Change in Control Severance Plan that originally became effective on November 1, 2016 and was subsequently amended (“the Plan”). This Plan is intended to be a severance pay plan governed by Title I of the Employee Retirement Income Security Act of 1974, as amended, and has been adopted primarily for the purpose of providing benefits for a select group of management or highly compensated employees. All benefits under the Plan will be paid solely from the general assets of the Company. All capitalized terms used herein are defined in Section 1 hereof.

Section 1. DEFINITIONS. As hereinafter used:

- 1.1 “Affiliate” shall have the meaning set forth in Rule 12b-2 under Section 12 of the Exchange Act.
- 1.2 “Applicable Multiplier” shall mean three (3) for a Tier I Employee and two (2) for a Tier II Employee.
- 1.3 “Applicable Period” shall mean a specified period immediately following an Eligible Employee’s Severance Date which shall be thirty-six (36) months for a Tier I Employee and twenty-four (24) months for a Tier II Employee.
- 1.4 “Beneficial Owner” shall have the meaning set forth in Rule 13d-3 under the Exchange Act.
- 1.5 “Board” means the Board of Directors of the Company.
- 1.6 “Cause” means: (i) the willful and continued failure by the Eligible Employee to substantially perform the Eligible Employee’s duties with the Employer that has not been cured within thirty (30) days after a written demand for substantial performance is delivered to the Eligible Employee by the Board, which demand specifically identifies the manner in which the Board believes that the Eligible Employee has not substantially performed the Eligible Employee’s duties, or (ii) the willful engaging by the Eligible Employee in conduct which is demonstrably and materially injurious to the Company, monetarily or otherwise. For purposes of clauses (i) and (ii) of this definition, (x) no act, or failure to act, on the Eligible Employee’s part shall be deemed “willful” unless done, or omitted to be done, by the Eligible Employee not in good faith and without reasonable belief that the Eligible Employee’s act, or failure to act, was in the best interest of the Company and (y) in the event of a dispute concerning the application of this provision, no claim by the Company that Cause exists shall be given effect unless the Company establishes to the Board by clear and convincing evidence that Cause exists and the Board finding to that effect is adopted by the affirmative vote of not less than three quarters (3/4) of the entire membership of the Board (after reasonable notice to the Eligible Employee and an opportunity for the Eligible Employee, together with the Eligible Employee’s counsel, to be heard by the Board).
- 1.7 “Change in Control” shall be deemed to have occurred if the event set forth in any one of the following paragraphs shall have occurred:
 - (a) any one person or more than one person acting as a group (a “Person”) acquires, whether by purchase in the market, tender offer, reorganization, merger, statutory share exchange or consolidation, other similar transaction involving the Company or any of its subsidiaries or otherwise (a “Transaction”), common stock of the Company possessing 30% or more of the total voting power of the stock of the Company unless

(A) all or substantially all of the individuals and entities that were the beneficial owners of the then-outstanding shares of common stock of the Company (the “Outstanding Company Common Stock”) or the combined voting power of the then outstanding voting securities of the Company (the “Outstanding Company Voting Securities”) immediately prior to such Transaction own, directly or indirectly, 50% or more of the then outstanding shares of common stock (or, for a non-corporate entity, equivalent securities) and the combined voting power of the then-outstanding voting securities entitled to vote generally in the election of directors (or, for a non-corporate entity, equivalent governing body), as the case may be, of the entity resulting from such Transaction (including, without limitation, an entity that, as a result of such transaction, owns the Company or all or substantially all of the Company’s assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership immediately prior to such Transaction of the Outstanding Company Common Stock and the Outstanding Company Voting Securities, as the case may be, and (B) at least a majority of the members of the board of directors (or, for a non-corporate entity, equivalent governing body) of the entity resulting from such Transaction were members of the board of directors of the Company at the time of the Transaction (which in the case of a market purchase shall be the date 30% ownership was first acquired, in the case of a tender offer, when at least 30% of the Company’s shares were tendered, and in other events upon the execution of the initial agreement or of the action of the Board providing for such Transaction); and provided, further, that, for purposes of this paragraph, the following acquisitions shall not constitute a Change in Control: (i) any acquisition directly from the Company, (ii) any acquisition by the Company, or (iii) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any Affiliate;

(b) a majority of the members of the Board is replaced during any 12-month period by (i) directors whose appointment or election is not endorsed by a majority of the Board before the date of such appointment or election and/or (ii) whose appointment or election is in connection with an election contest or through use of proxy access procedures included in the Company’s organizational documents;

(c) any Person acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such Person) assets of the Company that have a total gross fair market value of more than 40% of the total gross fair market value of all of the assets of the Company immediately before such acquisition or acquisitions; or

(d) the consummation of a complete liquidation or dissolution of the Company.

Further, and for the avoidance of doubt, a transaction will not constitute a Change in Control if its sole purpose is to (i) change the jurisdiction of the Company’s incorporation, or (ii) create a holding company that will be owned in substantially the same proportions by the persons who held the Company’s securities immediately before such transaction.

Provided, however, solely with respect to any Severance Pay that the Committee determines to be subject to Section 409A of the Code (and not excepted therefrom), and a Change in Control is a distribution event for purposes of such Severance Pay, the foregoing definition of Change in Control shall be interpreted, administered, limited and construed in a manner necessary to ensure that the occurrence of any such event shall result in a Change in Control only if such event qualifies as a change in the ownership or effective control of a corporation, or a change in the ownership of a substantial portion of the assets of a corporation, as applicable, within the meaning of Treasury Regulation Section 1.409A-3(i)(5).

1.8 “Code” means the Internal Revenue Code of 1986, as it may be amended from time to time.

1.9 “Committee” means the Compensation and Benefits Committee of the Board.

1.10 “Company” means Alcoa Corporation, a Delaware corporation, or any successors thereto.

- 1.11 “DB Pension Plan” means any tax-qualified, supplemental or excess defined benefit pension plan maintained by the Company or any of its Affiliates and any other defined benefit plan or agreement entered into between the Eligible Employee and the Company or any of its Affiliates which is designed to provide the Eligible Employee with supplemental defined benefit retirement benefits.
- 1.12 “DC Retirement Plan” means any tax-qualified, supplemental or excess defined contribution plan maintained by the Company or any of its Affiliates and any other defined contribution plan or agreement entered into between the Eligible Employee and the Company or any of its Affiliates which is designed to provide the Eligible Employee with supplemental defined contribution retirement benefits.
- 1.13 “Eligible Employee” means any Tier I or Tier II Employee. An Eligible Employee becomes a “Severed Employee” once he or she incurs a Severance.
- 1.14 “Employer” means the Company or any of its subsidiaries which is an employer of the Eligible Employee.
- 1.15 “Entity” means any individual, entity, person (within the meaning of Section 3(a)(9) of the Exchange Act) or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act), other than (i) an employee plan of the Company or any of its Affiliates, (ii) any Affiliate of the Company, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, or (iv) a corporation owned, directly or indirectly, by shareholders of the Company in substantially the same proportions as their ownership of the Company.
- 1.16 “Exchange Act” shall mean the Securities Exchange Act of 1934, as amended from time to time.
- 1.17 “Excise Tax” shall mean any excise tax imposed under Section 4999 of the Code.
- 1.18 “Good Reason” in respect of an Eligible Employee means the occurrence, in connection with a Change in Control, of, without the Eligible Employee’s written consent:

(a) the assignment to the Eligible Employee of duties materially inconsistent with the Eligible Employee’s duties with the Employer immediately prior to the Change in Control or a substantial adverse alteration in the nature or status of the Eligible Employee’s responsibilities from those in effect immediately prior to the Change in Control, including, but not limited to, (x) with respect to a Tier I Employee who held the office of Chief Executive Officer of the Company immediately prior to the Change in Control, the Eligible Employee’s ceasing to hold the office as the sole chief executive officer of the Company (or its parent or successor) and to function in that capacity, reporting directly to the board of directors of a public company, and (y) with respect to any other Tier I Employee or a Tier II Employee, the Eligible Employee’s ceasing to report directly to an equivalent officer position of a public company as that to which he or she reported prior to the Change in Control;

(b) a material reduction by the Company in the Eligible Employee’s total compensation and benefits in the aggregate from the effect immediately prior to the Change in Control (excluding any reduction that is generally applicable to all similarly situated officers of the Company). Total compensation and benefits includes, but is not limited to: (1) annual base salary, annual variable compensation opportunity (taking into account the target bonus amount of annual variable compensation); (2) long term stock-based and cash incentive opportunity (taking into account the target stock-based compensation amount); and (3) benefits and perquisites under pension, savings, life insurance, medical, health, disability, accident and material fringe benefit plans of the Company or its subsidiaries or Affiliates in which the Eligible Employee was participating immediately before the Change in Control;

(c) the relocation of the Eligible Employee's principal place of employment to a location more than fifty (50) miles from the Eligible Employee's principal place of employment immediately prior to the Change in Control; or

(d) the failure by the Employer to pay to the Eligible Employee any portion of the Eligible Employee's compensation, within fourteen (14) days of the date such compensation is due and after the final resolution of any dispute regarding the occurrence of a Good Reason event pursuant to Section 3.4 hereof.

The Eligible Employee's continued employment shall not constitute consent to, or a waiver of rights with respect to, any act or failure to act constituting Good Reason hereunder.

Without limiting the generality or effect of the foregoing, the Eligible Employee shall have no right to terminate employment for Good Reason pursuant to Section 1.18(a), (b) or (c) unless (1) the Eligible Employee provides written notice to the Company within thirty (30) days of the occurrence of such event that identifies such event with particularity, (2) the Company fails to correct such event within sixty (60) days after receipt of such notice from the Eligible Employee and (3) such termination must occur within sixty (60) days after the expiration of the failure of the Company to correct the event.

1.19 "Notice of Termination" shall have the meaning set forth in Section 3.6.

1.20 A "Separation from Service" means (i) an Eligible Employee ceases to provide any services to the Company in any capacity (whether as an employee or an independent contractor), other than bona fide services at a level that does not exceed more than fifty (50) percent of the average level of bona fide services (whether as an employee or an independent contractor) performed by the Eligible Employee over the preceding thirty-six (36) month period (or the full period of services to the Company if the Eligible Employee has been providing services to the Company for less than thirty-six (36) months), and (ii) the Company and the Eligible Employee reasonably anticipate that such cessation will be permanent. An Eligible Employee's Separation from Service will be determined in accordance with Section 409A of the Code and Treasury Regulation Section 1.409A-1(h).

1.21 "Severance" means an Eligible Employee's Separation from Service on or within two (2) years immediately following the date of the Change in Control, (x) by the Employer other than for Cause, or (y) by the Eligible Employee for Good Reason. In addition, for purposes of this Plan, the Eligible Employee shall be deemed to have incurred a Severance, if (i) the Eligible Employee's Separation from Service occurs because his or her employment is terminated by the Employer without Cause within three (3) months prior to a Change in Control or (ii) the Eligible Employee's Separation from Service occurs because he or she terminates his or her employment for Good Reason within three (3) months prior to a Change in Control. For purposes of any determination regarding the applicability of the immediately preceding sentence, any position taken by the Eligible Employee shall be presumed to be correct unless the Company establishes to the Board by clear and convincing evidence that such position is not correct. An Eligible Employee will not be considered to have incurred a Severance if his or her employment is discontinued by reason of the Eligible Employee's death or a physical or mental condition causing such Eligible Employee's inability to substantially perform his or her duties with the Company, including, without limitation, such condition entitling him or her to benefits under any sick pay or disability income policy or program of the Company.

1.22 "Severance Date" means the date on which an Eligible Employee's Severance takes place.

1.23 "Severance Pay" means the payment determined pursuant to Section 2.1(a) hereof.

1.24 "Tier I Employee" means the Chief Executive Officer, the Chief Financial Officer and the General Counsel of the Company; provided, however, that such person will cease to be a Tier I Employee for all

purposes under this Plan, if such person ceases to serve as the Chief Executive Officer, Chief Financial Officer and/or General Counsel of the Company prior to a Change in Control under circumstances other than as described in Section 1.21 hereof and; provided further that such person may thereafter be a Tier II Employee under this Plan if the Board or Committee designates such person a corporate officer (other than an assistant officer) of the Company as described in Section 1.25 hereof.

- 1.25 “Tier II Employee” means any corporate officer (other than an assistant officer) of the Company as the Board or Committee determines, which employee is not a Tier I Employee; provided, however, that such person will cease to be a Tier II Employee for all purposes under this Plan, if such person ceases to be a corporate officer of the Company as designated by the Board or Committee prior to a Change in Control under circumstances other than as described in Section 1.21 hereof.

Section 2. BENEFITS.

- 2.1 Severance Payments and Benefits. Each Eligible Employee who incurs a Severance shall be entitled, subject to Section 2.4, to receive the following payments and benefits from the Company, subject to such Eligible Employee’s execution, and non-revocation within fifty (50) days of the Severance Date, of a customary release of claims against the Company in the form attached hereto on Appendix A.

(a) Severance Pay equal to the product of (i) the sum of (x) the Severed Employee’s annual base salary, and (y) his or her target annual variable compensation with respect to the year in which the Change in Control occurs; provided, however, that in the event of an Eligible Employee’s Severance prior to a Change in Control, the variable compensation component of the Severance Pay due under this Section 2.1(a) will be based on his or her target annual variable compensation with respect to the higher of (1) the year in which the Eligible Employee’s Severance Date occurs or (2) the year prior to the year in which the Eligible Employee’s Severance Date occurs; and (ii) the Applicable Multiplier. For purposes of this Section 2.1(a), annual base salary shall be the higher of (i) base monthly salary in the calendar month immediately preceding a Change in Control or (ii) base monthly salary in the calendar month immediately preceding the Severed Employee’s Severance Date (in either case without regard to any reductions therein which constitute Good Reason) multiplied by twelve (12).

(b) A lump sum payment equal to a pro-rated amount of the Eligible Employee’s target annual variable compensation with respect to the year in which the Change in Control occurs; provided, however, that in the event of an Eligible Employee’s Severance prior to a Change in Control, the pro-rated variable compensation component of the Severance Pay due under this Section 2.1(b) will be based on the amount of annual variable compensation paid or payable to the Eligible Employee under the Company’s Incentive Compensation Plan(s) that is the higher of (1) the target annual variable compensation for the year in which the Eligible Employee’s Severance Date occurs or (2) the amount of annual variable compensation paid for the fiscal year prior to the year in which the Eligible Employee’s Severance Date occurs; in each case, the payment due under this Section 2.1(b) will be pro-rated to reflect the number of days worked by the Eligible Employee in the fiscal year of Severance prior to such Severance Date.

(c) During the Applicable Period, or until the earlier commencement of employment by the Severed Employee with an employer providing comparable benefits, the Company shall arrange to provide the Severed Employee and anyone entitled under the terms of the applicable plan to claim through the Severed Employee life, accident and health (including medical, behavioral, prescription drug, dental and vision) benefits substantially similar to those provided to the Severed Employee and anyone entitled to claim through the Severed Employee immediately prior to Employee’s Severance Date or, if more favorable to the Severed Employee, those provided to the Severed Employee and those entitled to claim through the Severed Employee immediately prior to the first occurrence of an event or circumstance constituting Good Reason, at no greater after tax cost to the Severed Employee than the after tax cost to the Severed Employee immediately prior to such Severance Date or occurrence. Coverage provided under this Plan will run concurrently with the coverage to which the Severed

Employee and anyone entitled to claim through the Severed Employee are entitled under the Consolidated Omnibus Budget Reconciliation Act of 1985 (“COBRA”).

(d) If the Severed Employee is a participant in a DC Retirement Plan, then in addition to the retirement benefits to which the Severed Employee is entitled under each DC Retirement Plan or any successor plan thereto, the Company shall pay the Severed Employee a lump sum amount, in cash, equal to the product of (i) the value of contributions or allocations actually made by the Company to all DC Retirement Plans, on behalf of the Severed Employee, with respect to the calendar year immediately preceding the year in which the Change in Control occurs (but assuming such contributions and allocations had been based on the annualized base salary plus target annual variable compensation as determined in Section 2.1(a)) and (ii) the Applicable Multiplier. Such contributions or allocations shall specifically not include any employee deferrals or contributions, or any earnings.

(e) If the Severed Employee is a participant in a DB Pension Plan, then in addition to the retirement benefits to which the Severed Employee is entitled under each DB Pension Plan or any successor plan thereto, the Company shall pay the Severed Employee a lump sum amount, in cash, equal to the excess of the actuarial equivalent of the aggregate retirement pension (taking into account any early retirement subsidies associated therewith and determined in accordance with each of the DB Pension Plan’s normal form of payment, commencing at the date (but in no event earlier than the end of the Applicable Period) as of which the actuarial equivalent of such form of payment is greatest) which the Severed Employee would have accrued and vested in under the terms of all DB Pension Plans determined:

- (i) without regard to any amendment to any DB Pension Plan adopted subsequent to a Change in Control and on or prior to the date of the Severed Employee’s Severance Date, which amendment adversely affects in any manner the computation of retirement benefits thereunder, and
- (ii) for purposes of determining such retirement benefit accrual, as if the Severed Employee had accumulated (after the Severed Employee’s Severance Date) a number of additional months of age and service credit thereunder as if the Severed Employee had remained employed by the Company through the earlier of (i) the last day of the Applicable Period, and (ii) the date upon which benefit accruals for active employees cease under the terms of the applicable DB Pension Plan, and
- (iii) for purposes of determining eligibility for such retirement benefits including all applicable retirement subsidies, as if the Severed Employee had accumulated (after the Severed Employee’s Severance Date) a number of additional months of age and service credit thereunder as if the Severed Employee had remained employed by the Company during the Applicable Period, and
- (iv) as if the Severed Employee had been credited under each DB Pension Plan compensation for each full calendar month beginning with the calendar month following the Severed Employee’s Severance Date and ending on the earlier of (i) the last day of the Applicable Period, and (ii) the date upon which benefit accruals for active employees cease under the terms of the applicable DB Pension Plan equal to the Severed Employee’s annualized base salary plus target annual variable compensation as determined in Section 2.1(a) divided by twelve over the actuarial equivalent of the aggregate retirement pension (taking into account any early retirement subsidies associated therewith and determined in accordance with each of the DB Pension Plan’s normal form of payment commencing at the date (but in no event earlier than the Severed Employee’s Severance Date) as of which the actuarial equivalent of such form of payment is greatest) which the Severed Employee had accrued and vested in pursuant to the provisions of the DB Pension Plans as of the Severed Employee’s Severance Date.

For purposes of this Section 2.1(e), “actuarial equivalent” shall be determined based upon the Severed Employee’s age as of the Severed Employee’s Severance Date using the same assumptions utilized under the Pension Plan for Certain Salaried Employees of Alcoa USA Corp., Section 8.3(d)(ii) or the successor to such provision (without regard to applicable dollar limitations) immediately prior to the Severed Employee’s Severance Date or, if more favorable to the Severed Employee, immediately prior to the first occurrence of an event or circumstance constituting Good Reason.

(f) If the Severed Employee would have become entitled to benefits under the Company’s post-retirement health care plans, as in effect immediately prior to the Severed Employee’s Severance Date or, if more favorable to the Severed Employee, as in effect immediately prior to the first occurrence of an event or circumstance constituting Good Reason, had the Severed Employee’s employment terminated at any time during the Applicable Period, the Company shall provide such post-retirement health care benefits to the Severed Employee and the Severed Employee’s dependents commencing on the later of (i) the date on which such coverage would have first become available to the Severed Employee and (ii) the date on which benefits described in 2.1(c) terminate and ending upon the death of the Severed Employee. Any such benefit, which is dependent on service or compensation shall be determined as if the Severed Employee had accumulated (after the Severed Employee’s Severance Date) a number of additional months of age and service credit thereunder as if the Severed Employee had remained employed by the Company up to the foregoing commencement date, and as if the Severed Employee had been credited with compensation for each full calendar month following the calendar month of the Severed Employee’s Severance Date up to the foregoing commencement date equal to the Severed Employee’s annualized base salary as determined in Section 2.1(a) divided by twelve plus the Severed Employee’s target annual variable compensation as determined in Section 2.1(a) divided by twelve. Except for the additional service and compensation during the Applicable Period, nothing herein is intended to provide the Severed Employee with benefits, which exceed the benefits provided to other participants in said post-retirement health care plans, as in effect from time to time.

(g) The Company shall provide the Severed Employee with access to reasonable outplacement services suitable to such person’s position for a period of 12 months or, if earlier, until the first acceptance by the Severed Employee of an offer of employment (to the extent of reimbursement for such outplacement services, such reimbursement shall occur prior to the last day of the 15th month following the Severance Date).

The amounts described in Sections 2.1(a), (b), (d) and (e) shall be paid to the Eligible Employee in a cash lump sum as soon as practicable after the Severance Date but in no event later than sixty (60) days after the Severance Date; provided that if (i) such 60-day period spans two (2) calendar years, payment shall be made in the later calendar year and (ii) the Severed Employee is, as of the Severance Date, a “specified employee” within the meaning of Section 409A of the Code as determined in accordance with the methodology duly adopted by the Company as in effect on the Severance Date, then such amounts shall instead be paid on the first business day following the date that is six months after the Severance Date (or if sooner, upon the death of the Severed Employee), with interest at the applicable federal rate provided for in Section 7872(f)(2)(A) of the Code, from the first business day after the Severance Date through the date of payment.

In order to comply with Section 409A of the Code, the following shall apply to health care benefits provided pursuant to Sections 2.1(c) and (f), the costs of which are not fully paid by the Severed Employee (the “Health Benefits”). Any and all reimbursements of eligible expenses made pursuant to the Health Benefits shall be made no later than the end of the calendar year next following the calendar year in which the expenses were incurred. The amount of expenses that are eligible for reimbursement or of in-kind benefits that are provided pursuant to the Health Benefits in any given calendar year shall not affect the expenses that are eligible for reimbursement or benefits to be provided pursuant to the Health Benefits in any other calendar year, except as specifically permitted by Treasury Regulation Section 1.409A-3(i)(1)(iv)(B). The Severed Employee’s right to the Health Benefits may not be liquidated or exchanged for any other benefit.

Excise Tax.

(a) In the event that the benefits provided for in this Plan (together with any other benefits or amounts) otherwise constitute “parachute payments” within the meaning of Section 280G of the Code and would, but for this Section 2.2 be subject to the Excise Tax, then the Eligible Employee’s benefits under this Plan shall be either: (i) delivered in full, or (ii) delivered as to such lesser extent as would result in no portion of such benefits being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by the Eligible Employee on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or a portion of such benefits may be subject to the Excise Tax. In the event of a reduction of benefits hereunder, the Accounting Firm (as defined below) shall determine which benefits shall be reduced so as to achieve the objective set forth in the preceding sentence. In no event shall the foregoing be interpreted or administered so as to result in an acceleration of payment or further deferral of payment of any amounts (whether under this Plan or any other arrangement) in violation of Section 409A of the Code.

(b) Unless the Company and the Eligible Employee otherwise agree in writing, all determinations required to be made under this Section 2.2, including the manner and amount of any reduction in the Eligible Employee’s benefits under this Plan, and the assumptions to be utilized in arriving at such determinations, shall be promptly determined and reported in writing to the Company and the Eligible Employee by the Company’s independent public accounting firm or other independent advisor selected by the Company that is not serving as the accounting firm or auditor for the individual, entity or group effecting the Change in Control (the “Accounting Firm”), and all such computations and determinations shall be conclusive and binding upon the Eligible Employee and the Company. All fees and expenses of the Accounting Firm shall be borne solely by the Company. For purposes of making the calculations required by this Section 2.2, the Accounting Firm may make reasonable assumptions and approximations concerning the application of Sections 280G and 4999 of the Code. The Company and the Eligible Employee shall furnish to the Accounting Firm such information and documents as the Accounting Firm may reasonably request to make a determination under this Section 2.2.

Legal Fees. The Company shall pay to the Eligible Employee all legal fees and expenses incurred by the Eligible Employee in disputing in good faith any issue hereunder or in seeking in good faith to obtain or enforce any benefit or right provided by this Plan; provided, that the payment of legal fees hereunder by the Company shall not be required if the Eligible Employee pursues such dispute in a manner inconsistent with the provisions of Sections 3.4 and 3.5 hereof; and provided further, that, the Eligible Employee shall be required to repay any such amounts to the Company to the extent that an arbitrator issues a final, unappealable order setting forth a determination that the position taken by the Eligible Employee was frivolous or advanced in bad faith. The Company shall pay to the Eligible Employee all legal fees and expenses incurred in connection with any tax audit or proceeding to the extent attributable to the application of Section 4999 of the Code to any payment or benefit provided hereunder. Such payments shall be made within fourteen (14) business days after delivery of the Eligible Employee’s written requests for payment accompanied with such evidence of fees and expenses incurred as the Company reasonably may require. In order to comply with Section 409A of the Code, in no event shall the payments by the Company under this Section 2.3 be made later than the end of the calendar year next following the calendar year in which such fees and expenses were incurred, provided, that the Eligible Employee shall have submitted an invoice for such fees and expenses at least fourteen (14) business days before the end of the calendar year next following the calendar year in which such fees and expenses were incurred. The amount of such legal fees and expenses that the Company is obligated to pay in any given calendar year shall not affect the legal fees and expenses that the Company is obligated to pay in any other calendar year, and the Eligible Employee’s right to have the Company pay such legal fees and expenses may not be liquidated or exchanged for any other benefit.

Withholding. The Severed Employees shall be solely responsible for all taxes owed with respect to all payments and benefits provided hereunder. The Severed Employees must pay all applicable foreign, federal

and state income and employment withholding taxes when due. The Company shall be entitled to withhold from amounts to be paid to the Severed Employee hereunder any federal, state or local withholding or other taxes or charges (or foreign equivalents of such taxes or charges) which it is from time to time required to withhold.

2.5 Status of Plan Payments. Neither Severance Pay nor any payment made pursuant to Section 2.1(b), (d) or (e) hereof shall constitute “compensation” (or similar term) under the Company’s and its Affiliates’ employee benefit plans, including any DB Pension Plan or DC Retirement Plan.

2.6 Mitigation; Setoff. The Severed Employee is not required to seek other employment or attempt in any way to reduce any amounts payable to him or her under the Plan. Further, except as specifically provided in Section 2.1(c), no payment or benefit provided for in this Plan shall be reduced by any compensation earned by the Severed Employee as a result of employment by another employer, by retirement benefits, by offset against any amount claimed to be owed by the Severed Employee to the Company or its Affiliates, or otherwise.

Section 3. PLAN ADMINISTRATION; CLAIMS PROCEDURES.

3.1 The Committee shall administer the Plan and may interpret and construe the terms of the Plan, prescribe, amend and rescind rules and regulations under the Plan and make all other determinations necessary or advisable for the administration of the Plan, subject to all of the provisions of the Plan, including, without limitation, Section 3.4. Any determination by the Committee shall be final and binding with respect to the subject matter thereof on all Eligible Employees.

3.2 The Committee may delegate any of its duties hereunder to such person or persons from time to time as it may designate.

3.3 The Committee is empowered, on behalf of the Plan, to engage accountants, legal counsel and such other personnel as it deems necessary or advisable to assist it in the performance of its duties under the Plan. The functions of any such persons engaged by the Committee shall be limited to the specified services and duties for which they are engaged, and such persons shall have no other duties, obligations or responsibilities under the Plan. Such persons shall exercise no discretionary authority or discretionary control respecting the management of the Plan. All reasonable expenses thereof shall be borne by the Company.

3.4 In the event of a claim by a Severed Employee, such Severed Employee shall present the reason for his or her claim, dispute or controversy in writing to the Committee. The Committee shall, within sixty (60) days after receipt of such written claim, dispute or controversy, send a written notification to the Severed Employee as to its disposition. In the event the claim, dispute or controversy is wholly or partially denied, such written notification shall (i) state the specific reason or reasons for the denial, (ii) make specific reference to pertinent Plan provisions on which the denial is based, (iii) provide a description of any additional material or information necessary for the Severed Employee to perfect the claim, dispute or controversy and an explanation of why such material or information is necessary, and (iv) set forth the procedure by which the Severed Employee may appeal the denial of his or her claim, dispute or controversy. In the event a Severed Employee wishes to appeal the denial of his or her claim, dispute or controversy he or she may request a review of such denial by making application in writing to the Committee within sixty (60) days after receipt of such denial. Such Severed Employee (or his or her duly authorized legal representative) may, upon written request to the Committee, review any documents pertinent to his or her claim, dispute or controversy and submit in writing, issues and comments in support of his or her position. Within sixty (60) days after receipt of a written appeal (unless special circumstances require an extension of time, but in no event more than one hundred twenty (120) days after such receipt), the Committee shall notify the Severed Employee of the final decision. The final decision shall be in writing and shall include specific reasons for the decision, written in a manner calculated to be understood by the claimant, and specific references to the pertinent Plan provisions on which the decision is based. Notwithstanding the foregoing, any claim, dispute or controversy regarding whether an Eligible Employee was terminated for

Cause shall be submitted to the Board in accordance with Section 1.6, and upon the mutual agreement of the Severed Employee and the Committee, any claim, dispute or controversy that has been submitted by the Severed Employee in writing to the Committee may be submitted directly to arbitration in accordance with Section 3.5.

3.5 Any unresolved claim, dispute or controversy arising under or in connection with the Plan, and which is not resolved in accordance with Section 3.4, shall be settled exclusively by arbitration in Pittsburgh, Pennsylvania or at any other mutually agreed upon location in the United States. All claims, disputes and controversies shall be submitted to the CPR Institute for Dispute Resolution (“CPR”) in accordance with the CPR’s rules then in effect; provided, however, that the evidentiary standards set forth in this Agreement shall apply. The claim, dispute or controversy shall be heard and decided by three arbitrators selected from CPR’s employment panel. The arbitrator’s decision shall be final and binding on all parties. Judgment may be entered on the arbitrator’s award in any court having jurisdiction.

3.6 Any purported termination of an Eligible Employee’s employment shall be communicated by written Notice of Termination from one party hereto to the other party in accordance with Section 5.7. For purposes of this Agreement, a “Notice of Termination” shall mean a notice which shall indicate the specific termination provision in this Plan relied upon, shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Eligible Employee’s employment under the provision so indicated, and shall specify the Severance Date (which, in the case of a termination by the Company, shall not be less than thirty (30) days and, in the case of a termination by the Eligible Employee, shall not be less than fifteen (15) days nor more than sixty (60) days, respectively, from the date such Notice of Termination is given). The Company and the Eligible Employee shall take all steps necessary (including with regard to any post-termination services by the Eligible Employee) to ensure that any termination described in this Section 3.6 constitutes a Separation from Service occurring on the Severance Date.

Section 4. PLAN MODIFICATION OR TERMINATION.

The Plan may be amended or terminated by the Committee at any time; provided that the Plan may not be terminated, or amended in any manner that materially adversely affects any Eligible Employee, (A) within two years immediately following a Change in Control, or (B) within one (1) year prior to a Change in Control.

Section 5. GENERAL PROVISIONS.

5.1 Except as otherwise provided herein or by law, no right or interest of any Eligible Employee under the Plan shall be assignable or transferable, in whole or in part, either directly or by operation of law or otherwise, including without limitation by execution, levy, garnishment, attachment, pledge or in any manner; no attempted assignment or transfer thereof shall be effective; and no right or interest of any Eligible Employee under the Plan shall be liable for, or subject to, any obligation or liability of such Eligible Employee. When a payment is due under this Plan to an Eligible Employee who is unable to care for his or her affairs, payment may be made directly to his or her legal guardian or personal representative.

Nothing herein is intended to affect an employee’s rights under any unemployment law or severance contract or plan.

5.2 Neither the establishment of the Plan, nor any modification thereof, nor the creation of any fund, trust or account, nor the payment of any benefits shall be construed as giving any Eligible Employee, or any person whomsoever, the right to be retained in the service of the Company or any Affiliate, and all Eligible Employees shall remain subject to discharge to the same extent as if the Plan had never been adopted.

- 5.3 If any provision of this Plan shall be held invalid or unenforceable, such invalidity or unenforceability shall not affect any other provisions hereof, and this Plan shall be construed and enforced as if such provisions had not been included.
- 5.4 This Plan shall inure to the benefit of and be binding upon the heirs, executors, administrators, successors and assigns of the parties, including each Eligible Employee, present and future, and any successor to the Company. If an Eligible Employee shall die while any amount would still be payable to such Eligible Employee hereunder if the Eligible Employee had continued to live, all such amounts, unless otherwise provided herein, shall be paid in accordance with the terms of this Plan to the executor, personal representative or administrators of the Eligible Employee's estate.
- 5.5 The headings and captions herein are provided for reference and convenience only, shall not be considered part of the Plan, and shall not be employed in the construction of the Plan.
- 5.6 The Plan shall not be funded. No Eligible Employee shall have any right to, or interest in, any assets of the Company which may be applied by the Company to the payment of benefits or other rights under this Plan.
- 5.7 Any notice or other communication required or permitted pursuant to the terms hereof shall have been duly given when delivered or mailed by United States Mail, first class, postage prepaid, addressed to the intended recipient at his, her or its last known address.
- 5.8 This Plan shall be construed and enforced according to the laws of the state of Delaware to the extent not preempted by federal law, which shall otherwise control.

AMENDED AND RESTATED EXECUTIVE SEVERANCE AGREEMENT

By this Amended and Restated Executive Severance Agreement dated and effective as of July 30, 2019 (the “Agreement”), Alcoa Corporation (the “Company”), and [NAME], who has been designated as an officer of the Company by the Company’s Board of Directors (“Executive”), intending to be legally bound, and for good and valuable consideration, agree as follows:

I. Voluntary Resignation or Retirement.

You, the Executive, may terminate your employment with the Company by voluntarily resigning or by retiring. If you wish to resign or retire, you will provide the Company with at least three months’ advance written notice (the “Notice,” which shall contain your selected date of termination, which must be at least three months after the date the Notice is received by the Company (such date of receipt, the “Notice Date”)), after which the following conditions shall apply:

Your active service with the Company will be terminated on the date specified in the Notice (or such later date as you and the Company mutually agree), or such earlier date as the Company may determine in its sole discretion (the “Voluntary Termination Date”). During the period from the Notice Date through the Voluntary Termination Date, (i) the Company may, in its sole discretion, assign you such duties as it sees fit (but commensurate with your position) and (ii) you agree to continue to provide at least 20% of the average level of services you provided to the Company during the preceding 36-month period, such that your “separation from service” for purposes of Section 409A of the Internal Revenue Code of 1986, as amended (“409A”), occurs on the Voluntary Termination Date.

If your employment with the Company terminates pursuant to this Section I, you will be paid the following amounts on the first business day following the date which is six months after the Voluntary Termination Date (the “Six-Month Delay Date”) (or if sooner, upon your death), provided that on or after the Voluntary Termination Date, and at least 10 days prior to the Six-Month Delay Date, you execute and return to the Company the release agreement attached as Exhibit A (the “Release Agreement”) and (ii) any period within which you may revoke the Release Agreement pursuant to the terms thereof has expired without you having revoked the Release Agreement:

(i) \$50,000 in consideration of execution and delivery of the Release Agreement as provided above; and

(ii) If the Voluntary Termination Date occurs before the date specified in your Notice and less than three months following the Notice Date (e.g., if the Company elects a Voluntary Termination Date earlier than the date specified in the Notice), a lump sum amount equal to your monthly base salary as of the Voluntary Termination Date for the time between the Voluntary Termination Date and three months following the Notice Date.

If your employment with the Company terminates pursuant to this Section I, upon and following the Voluntary Termination Date, your other compensation and benefits continue to be governed by the terms of the plans in which you participate; provided however, that payments and benefits under this Section I are in lieu of any other involuntary separation benefits or severance payments which you may be eligible to receive from the Company; and if you receive severance pay and benefits under the Company’s Change in Control Severance Plan, no payments will be made, or benefits provided, under this Agreement.

II. Termination of Executive’s Employment by the Company.

The Company may terminate your employment at any time, with or without Cause, with the results described below. In such case, the Company shall determine the effective date of your termination, which termination shall constitute a “separation from service” for purposes of 409A (the “Involuntary Termination Date”).

A. Involuntary Termination With Cause. If the Company terminates your employment due to Cause, you will receive no severance payment under this Agreement or any other severance plan, policy or arrangement of the Company or any of its affiliates. For purposes of this Agreement, “Cause” means: (i) your willful and continued failure to substantially perform your duties that has not been cured within thirty days after a written demand for substantial

performance is delivered to you, which demand specifically identifies the manner in which the Company believes that you have not substantially performed your duties, or (ii) your willful engagement in conduct which is demonstrably and materially injurious to the Company, monetarily or otherwise. For purposes of clauses (i) and (ii) of this definition, (x) no act, or failure to act, on your part shall be deemed “willful” unless done, or omitted to be done, by you not in good faith and without reasonable belief that your act, or failure to act, was in the best interest of the Company, and (y) in the event of a dispute concerning the application of this provision, no claim by the Company that Cause exists shall be given effect unless the Board determines that there is clear and convincing evidence that Cause exists and the Board finding to that effect is adopted by the affirmative vote of not less than three quarters of the entire membership of the Board (after reasonable notice to you and an opportunity for you, together with your counsel, to be heard by the Board).

B. Involuntary Termination Without Cause. If the Company terminates your employment for reasons other than Cause, and you fulfill your obligations as set forth in this Agreement, you shall be paid the greater of (i) the amounts you would have been entitled to receive under the Alcoa USA Corp. Involuntary Separation Plan (or successor plan) if you had been an eligible participant under such plan or (ii) the amounts set forth below in this Section II.B, in either case on the Six-Month Delay Date (or if sooner, upon your death) or, with respect to the amount payable under Section II.B(ii), if later and applicable, in the fiscal year following the fiscal year in which the Involuntary Termination Date occurs, provided that, on or after the Involuntary Termination Date, and at least 10 days prior to the Six-Month Delay Date, (i) you execute and return to the Company the Release Agreement and (ii) any period within which you may revoke the Release Agreement pursuant to the terms thereof has expired without you having revoked the Release Agreement:

(i) a lump sum amount equivalent to two times your annual base salary as of the Involuntary Termination Date;

(ii) a pro-rated annual bonus for the fiscal year in which the Involuntary Termination Date occurs, which lump sum amount shall be determined based on, for such fiscal year, the level of achievement of the applicable performance goals under the Company’s Incentive Plan(s), the bonus-eligible percentage of your annual base pay in effect and the amount of base pay actually paid to you prior to the Involuntary Termination Date;

(iii) access to reasonable outplacement services suitable to the Executive’s position for a period of 12 months or, if earlier, until the first acceptance by the Executive of an offer of employment (to the extent of reimbursement for such outplacement services, such reimbursement shall occur prior to the last day of the 15th month following the Involuntary Termination Date);

(iv) \$50,000 in consideration of execution and delivery of the Release Agreement as provided above; and

(iv) (A) if, on the Involuntary Termination Date, you are an active participant who is accruing benefits under any tax-qualified, supplemental or excess defined benefit pension plan maintained by the Company or any of its affiliates or any other defined benefit plan or agreement entered into between you and the Company or any of its affiliates which is designed to provide you with supplemental defined benefit retirement benefits (a “DB Pension Plan”), a lump sum amount equal to the excess of (I) the actuarial equivalent of the aggregate retirement pension calculated as if you had been credited with an additional period of service commencing on your Involuntary Termination Date and ending on the earlier of (i) the 24 month anniversary of your Involuntary Termination Date, and (ii) the date upon which benefit accruals for active employees cease under the terms of the DB Pension Plan; over (II) the actuarial equivalent of the aggregate retirement pension which you had accrued under the provisions of the DB Pension Plan as of the Involuntary Termination Date. For purposes of this Section II.B(iv), actuarial equivalence shall be made consistent with the methodology used in the Alcoa Corporation Change in Control Severance Plan; or

(B) if, on the Involuntary Termination Date, you are not an active participant who is accruing benefits under a DB Pension Plan, but are eligible to receive either Employer Retirement Income Contributions (ERIC) under an Alcoa Savings Plan (a “U.S. DC Plan”), a lump sum amount, in cash, equal to two times the U.S. DC Plan contribution percent in effect on the Involuntary Termination Date multiplied by the sum of your annual base salary as of your Involuntary Termination Date plus your target annual variable compensation; or

(C) if, on the Involuntary Termination Date, you are not an active participant who is accruing benefits under a DB Pension Plan, but are eligible to participate in the Global Pension Plan, you will receive a lump sum amount, in

cash, equal to two times the Global Pension Plan annual percentage contribution in effect on the Involuntary Termination Date, multiplied by the sum of your annual base salary as of your Involuntary Termination Date plus your target annual variable compensation.

In addition, for a period of two years after the Involuntary Termination Date the Company shall arrange to provide you, and anyone entitled under the terms of the applicable plan to claim through you, health (including medical, behavioral, prescription drug, dental and vision) benefits substantially similar to those provided to active employees as long as you pay the active employee contribution rate for the coverage. Coverage provided under this Agreement will run concurrently with the coverage to which you are entitled under the Consolidated Omnibus Budget Reconciliation Act of 1985. In order to comply with 409A, the following shall apply to the health care benefits provided pursuant to this paragraph, the costs of which are not fully paid by you (the “Health Benefits”). Any and all reimbursements of eligible expenses made pursuant to the Health Benefits shall be made no later than the end of the calendar year next following the calendar year in which the expenses were incurred. The amount of expenses that are eligible for reimbursement or of in-kind benefits that are provided pursuant to the Health Benefits in any given calendar year shall not affect the expenses that are eligible for reimbursement or benefits to be provided pursuant to the Health Benefits in any other calendar year, except as specifically permitted by Treasury Regulation Section 1.409A-3(i)(1)(iv)(B). Your right to the Health Benefits may not be liquidated or exchanged for any other benefit.

If your employment with the Company terminates pursuant to this Section II, upon and following the Involuntary Termination Date, your other compensation and benefits continue to be governed by the terms of the plans in which you participate; provided however, that payments and benefits under this Section II are in lieu of any other involuntary separation benefits or severance payments which you may be eligible to receive from the Company; and if you receive severance pay and benefits under the Company’s Change in Control Severance Plan, no payments will be made, or benefits provided, under this Agreement or the Alcoa USA Corp. Involuntary Separation Plan (or successor plan).

Restrictive Covenants

In light of the unique character of your position with the Company, the business relationships you have developed and will continue to develop while employed by the Company, and your knowledge of the Company’s business affairs including the Confidential Information (as defined below), and with the acknowledgment of the continuing consideration which you will receive from the Company as a member of its senior executive management team, and the personal financial security which is provided under this Agreement, or in the event of a change in control as defined in the Company’s Change in Control Severance Plan, you agree to the following Restrictive Covenants:

Noncompetition: During your employment and for a period of two (2) years thereafter (regardless of whether the termination of your employment is voluntary or involuntary), you will not directly or indirectly provide services, whether as a director, officer, partner, owner, employee, inventor, consultant, advisor, agent, or otherwise, to any domestic or international business or firm that is engaged or has plans to become engaged in the manufacturing, fabricating, distributing or selling of aluminum and/or aluminum related products for the aerospace, automotive, packaging, or other aluminum fabricated product markets, the mining of bauxite, conversion and refining of bauxite into alumina and/or the sale or distribution of alumina or alumina related chemical products or any other line of business in which the Company is involved or becomes involved during your employment with the Company (collectively, the “Aluminum Business”). However, you may own up to five percent (5%) of the outstanding securities of any publicly traded company.

It is not the Company’s intention to restrict or limit your activities, unless it is believed that there is a substantial possibility that your future employment, or activities in any of the lines of business in which the Company is engaged may be detrimental to the Company. So as to not unduly restrict your future employment, if you desire to enter into any employment arrangement or relationship with any entity in the above identified markets within the two year period, please consult with the Company to discuss your intended relationship with the competitive entity. You and the Company recognize that due to the many different businesses which presently compete, or which in the future may compete with the Company in the Aluminum Business, the Company will discuss your desire to enter into a business or professional relationship with any manufacturer or firm which may be perceived as a competitor.

Non-solicitation: During your employment and for a period of two (2) years thereafter (regardless of whether the termination of your employment was voluntary or involuntary), you will not directly or indirectly (i) solicit, induce or attempt to solicit or induce any current or future employee of the Company to leave the Company for any reason, or (ii) solicit business from, or engage in business with, any current or future customer or supplier of the Company which you met and dealt with during your employment with the Company for any purpose. In the event that you become aware that any present or future employee of the Company has been hired by any business or firm with which you are then affiliated, you will immediately notify the Company's chief legal officer to confirm your non-solicitation of said employee.

Non-disparagement: You further agree that you will not disparage or subvert the Company or any of its affiliated corporations or entities, or any of their officers, directors, managers, members, employees, agents or representatives, or make any statement reflecting negatively on the Company, its affiliated corporations or entities, or any of their officers, directors, managers, members, employees, agents or representatives, including, but not limited to, any matters relating to the operation or management of the Company or any of its businesses and affiliated corporations or entities, your employment and the termination of your employment with the Company and its affiliated corporations or entities, irrespective of the truthfulness or falsity of such statement.

Confidentiality: During your employment with the Company and at all times thereafter, you will maintain the confidentiality of any and all information about the Company which is not generally known or available outside the Company, including without limitation, strategic plans, technical and operating know-how, business strategy, trade secrets, customer information, business operations and other proprietary information ("**Confidential Information**"), and you will not, directly or indirectly, disclose any Confidential Information to any person or entity, or use any Confidential Information, whether for your benefit or the benefit of any new employer or any other person or entity, or in any other manner that is detrimental to or inconsistent with any interest of the Company. If you receive notice that you may be required to disclose any Confidential Information pursuant to a subpoena or other lawful process, you must notify the Company's chief legal officer immediately.

You acknowledge and agree that given the nature of the Company's business, which is conducted throughout the world, and your position of confidence and trust with the Company, the scope and duration of these Restrictive Covenants are reasonable and necessary to protect the legitimate business interests of the Company. You further acknowledge that you have received substantial compensation from the Company and that your general skills and abilities are such that you can be gainfully employed in noncompetitive employment, and that this Agreement will in no way prevent you from earning a living following your employment with the Company.

You also recognize and agree that any breach or threatened or anticipated breach of any part of these Restrictive Covenants will result in irreparable harm to the Company, and that the remedy at law for any such breach or threatened breach will be inadequate. Accordingly, in addition to any other legal or equitable remedies that may be available to the Company, you agree that the Company shall be entitled to obtain an injunction, without posting a bond, to prevent any breach or threatened breach of any part of these Restrictive Covenants. You agree to reimburse the Company for all costs and expenses, including reasonable attorney's fees and costs, incurred by the Company in connection with the enforcement of its rights under this Agreement.

In the event that any court of competent jurisdiction finds that the limitations set forth in these Restrictive Covenants are overly broad with respect to duration, geographic scope or scope of prohibited activities, such court shall have the authority to reduce the duration, area or activities of such provisions so as to be enforceable to the maximum extent compatible with applicable law, and such provisions shall then be enforced as modified. In the event that a court reduces the duration of the restriction, any unpaid amounts, as set forth above, shall be reduced on a pro rata basis.

Notwithstanding the foregoing, pursuant to the Defend Trade Secrets Act of 2016, you will not be held criminally, or civilly, liable under any Federal or State trade secret law for the disclosure of a trade secret that is made in confidence either directly or indirectly to a Federal, State, or local government official, or an attorney, for the sole purpose of reporting, or investigating, a violation of law. Moreover, you may disclose trade secrets in a complaint, or other document, filed in a lawsuit, or other proceeding, if such filing is made under seal. Finally, if you file a lawsuit alleging retaliation by the Company for reporting a suspected violation of the law, you may disclose the trade secret

to your attorney and use the trade secret in the court proceeding, provided that you file any document containing the trade secret under seal and do not disclose the trade secret, except pursuant to court order.

Further, nothing in this Agreement prohibits you from voluntarily communicating, without notice to or approval by the Company, with any federal or state government agency about a potential violation of a federal or state law or regulation or to participate in investigations, testify in proceedings regarding the Company's or an affiliate's past or future conduct, or engage in any activities protected under whistle blower statutes.

Tax Withholding

You shall be solely responsible for all taxes owed with respect to all payments and benefits provided hereunder. You must pay all applicable foreign, federal and state income and employment withholding taxes when due. The Company shall be entitled to withhold from amounts to be paid to you hereunder any federal, state or local withholding or other taxes or charges (or foreign equivalents of such taxes or charges) which it is from time to time required to withhold.

Application of 409A Provisions

If you provide a written, unqualified opinion from your tax advisor to the Company stating that you are a non-resident alien not subject to 409A at the time of your termination of employment, or that 409A otherwise does not apply to you at that time, unless the Company has reason to believe that such opinion is more likely than not incorrect, the Company shall cooperate with you to amend this Agreement in a mutually satisfactory manner to cause any severance payments payable hereunder to be paid as soon as practicable following your termination of employment, and to otherwise remove references to Section 409A from this Agreement; provided that in no event shall such payments be made unless and until you have returned an executed Release Agreement (signed by you on or following your termination date) and any period within which you may revoke the Release Agreement pursuant to the terms thereof has expired without you having revoked the Release Agreement. The Company shall have no responsibility for any taxes or penalties you may incur on account of any such amendments, whether pursuant to 409A or otherwise.

Governing Law; Jurisdiction

This Agreement shall be governed and interpreted in accordance with the laws of the State of Delaware without reference to its choice of law principles. Any action arising out of or related to this Agreement shall be brought in the state or Federal courts located in Pittsburgh, Pennsylvania, and you and the Company consent to the jurisdiction and venue of such courts.

Amendment; Waiver

No provision of this Agreement may be modified, waived, or discharged unless such waiver, modification or discharge is in writing and signed by a duly authorized representative of the Company. Any failure by you or the Company to enforce any of the provisions of this Agreement shall not be construed to be a waiver of such provisions or any right to enforce each and every provision in the future. A waiver of any breach of this Agreement shall not be construed as a waiver of any other or subsequent breach.

Successors; Binding Agreement

The Company shall have the right to assign its rights and obligations under this Agreement to any entity that acquires all or substantially all of the assets of the Company and continues the Company's business. The rights and obligations of the Company under this Agreement shall inure to the benefit and shall be binding upon the successors and assigns of the Company.

Severability

In the event that any one or more of the provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remainder of this Agreement shall not in any way be affected or impaired thereby.

Entire Agreement

You acknowledge that you have not relied upon any representations (whether oral or written) from the Company, other than as set forth in this Agreement. This Agreement sets forth the entire agreement and understanding between you and the Company and merges and supersedes any and all prior discussions, agreements, arrangements and understandings with regard to the subject matter hereof, and may not be modified, amended, discharged or supplemented in any respect, except by a subsequent writing signed by you and the Company. In the event that any payments under this agreement in the aggregate are more than 2.99 times of your base salary and bonus, the payments which you will be eligible to receive under this Agreement will be reduced accordingly. Except for involuntary separation benefits or other similar severance payments, this Agreement does not supersede the terms of any other compensation plans, stock option programs, welfare benefit plans, or other such plans or programs in which you are eligible to participate, or may become eligible to participate.

If you agree to the terms of this Agreement, please sign on the line provided below and return two signed copies to the Secretary. A fully executed copy will be returned to you for your files after it is signed by the Company.

Termination of Officer Status and Agreement

You hereby acknowledge and agree that, in the event you cease to be the Chief Executive Officer or the Chief Financial Officer of the Company, as the case may be, as designated by the Board or a committee thereof, and remain employed with the Company in another continuing role thereafter, this Agreement shall immediately terminate and become null and void upon such Board determination date and you shall not have any right to payments or benefits provided hereunder.

IN WITNESS WHEREOF, the Company, by its duly authorized representative, and the Executive have executed this Agreement on the dates stated below, effective as of the date first set forth above.

ALCOA CORPORATION

By: _____
Title: _____
Date: _____

[EXECUTIVE]

By: _____
Title: _____
Date: _____

AMENDED AND RESTATED EXECUTIVE SEVERANCE AGREEMENT

By this Amended and Restated Executive Severance Agreement dated and effective as of July 30, 2019 (the “Agreement”), Alcoa Corporation (the “Company”), and [NAME], who has been designated as an officer of the Company by the Company’s Board of Directors (the “Board”) (“Executive”), intending to be legally bound, and for good and valuable consideration, agree as follows:

I. Termination of Executive’s Employment by the Company.

The Company may terminate your employment at any time, with or without Cause, with the results described below. In such case, the Company shall determine the effective date of your termination, which termination shall constitute a “separation from service” for purposes of Section 409A of the Internal Revenue Code of 1986, as amended (“409A”) (the “Involuntary Termination Date”).

A. Involuntary Termination With Cause. If the Company terminates your employment due to Cause, you will receive no severance payment under this Agreement or any other severance plan, policy or arrangement of the Company or any of its affiliates. For purposes of this Agreement, “Cause” means: (i) your willful and continued failure to substantially perform your duties that has not been cured within thirty days after a written demand for substantial performance is delivered to you, which demand specifically identifies the manner in which the Company believes that you have not substantially performed your duties, or (ii) your willful engagement in conduct which is demonstrably and materially injurious to the Company, monetarily or otherwise. For purposes of clauses (i) and (ii) of this definition, (x) no act, or failure to act, on your part shall be deemed “willful” unless done, or omitted to be done, by you not in good faith and without reasonable belief that your act, or failure to act, was in the best interest of the Company, and (y) in the event of a dispute concerning the application of this provision, no claim by the Company that Cause exists shall be given effect unless the Board determines that there is clear and convincing evidence that Cause exists and the Board finding to that effect is adopted by the affirmative vote of not less than three quarters of the entire membership of the Board (after reasonable notice to you and an opportunity for you, together with your counsel, to be heard by the Board).

B. Involuntary Termination Without Cause. If the Company terminates your employment for reasons other than Cause, and you fulfill your obligations as set forth in this Agreement, you shall be paid the greater of (i) the amounts you would have been entitled to receive under the Alcoa USA Corp. Involuntary Separation Plan (or successor plan) if you had been an eligible participant under such plan or (ii) the amounts set forth below in this Section I.B, in either case as soon as practicable after the Involuntary Termination Date but in no event later than 60 days after the Involuntary Termination Date; *provided*, that if you are, as of the Involuntary Termination Date, a “specified employee” within the meaning of 409A as determined in accordance with the methodology duly adopted by the Company as in effect on the Involuntary Termination Date, then such amounts shall instead be paid on the first business day following the date which is six months after the Involuntary Termination Date (the “Six-Month Delay Date”) (or if sooner, upon your death); and *further provided* that the amount payable under Section I.B(ii), if applicable, will be paid in the fiscal year following the fiscal year in which the Involuntary Termination Date occurs, if later than as otherwise specified herein. Payment of the amounts set forth in Section I.B are conditioned upon and subject to the requirement that, on or after the Involuntary Termination Date, and at least 10 days prior to the Six-Month Delay Date or, if applicable, at least 10 days prior to the last day of the aforementioned 60 day period, (i) you execute and return to the Company the release agreement attached as Exhibit A (the “Release Agreement”) and (ii) any period within which you may revoke the Release Agreement pursuant to the terms thereof has expired without you having revoked the Release Agreement:

(i) a lump sum amount equivalent to your annual base salary as of the Involuntary Termination Date; and

(ii) a pro-rated annual bonus for the fiscal year in which the Involuntary Termination Date occurs, which lump sum amount shall be determined based on, for such fiscal year, the level of achievement of the applicable performance goals under the Company’s Incentive Plan(s), the bonus-eligible percentage of your annual base pay in effect and the amount of base pay actually paid to you prior to the Involuntary Termination Date; and

(iii) access to reasonable outplacement services suitable to the Executive’s position for a period of 12 months or, if earlier, until the first acceptance by the Executive of an offer of employment (to the extent of reimbursement for such outplacement services, such reimbursement shall occur prior to the last day of the 15th month following the Involuntary Termination Date); and

(iv)(A) if, on the Involuntary Termination Date, you are an active participant who is accruing benefits under any tax-qualified, supplemental or excess defined benefit pension plan maintained by the Company or any of its affiliates (a “DB Pension Plan”), pursuant to the DB Pension Plan terms, you will receive additional pension service through the earlier of (i) the one year anniversary of your Involuntary Termination Date, and (ii) the date upon which benefit accruals for active employees cease under the terms of the DB Pension Plan; or

(B) if, on the Involuntary Termination Date, you are not an active participant who is accruing benefits under a DB Pension Plan, but are eligible to receive either Employer Retirement Income Contributions (ERIC) under an Alcoa Savings Plan (a “U.S. DC Plan”), a lump sum amount, in cash, equal to the U.S. DC Plan contribution percent in effect on the Involuntary Termination Date multiplied by the sum of your annual base salary as of your Involuntary Termination Date plus your target annual variable compensation; or

(C) if, on the Involuntary Termination Date, you are not an active participant who is accruing benefits under a DB Pension Plan, but are eligible to participate in the Global Pension Plan, you will receive a lump sum amount, in cash, equal to the Global Pension Plan annual percentage contribution in effect on the Involuntary Termination Date, multiplied by the sum of your annual base salary as of your Involuntary Termination Date plus your target annual variable compensation.

In addition, for a period of one year after the Involuntary Termination Date the Company shall arrange to provide you, and anyone entitled under the terms of the applicable plan to claim through you, health (including medical, behavioral, prescription drug, dental and vision) benefits substantially similar to those provided to active employees as long as you pay the active employee contribution for the coverage. Coverage provided under this Agreement will run concurrently with the coverage to which you are entitled under the Consolidated Omnibus Budget Reconciliation Act of 1985. In order to comply with 409A, the following shall apply to the health care benefits provided pursuant to this paragraph, the costs of which are not fully paid by you (the “Health Benefits”). Any and all reimbursements of eligible expenses made pursuant to the Health Benefits shall be made no later than the end of the calendar year next following the calendar year in which the expenses were incurred. The amount of expenses that are eligible for reimbursement or of in-kind benefits that are provided pursuant to the Health Benefits in any given calendar year shall not affect the expenses that are eligible for reimbursement or benefits to be provided pursuant to the Health Benefits in any other calendar year, except as specifically permitted by Treasury Regulation Section 1.409A-3(i)(1)(iv)(B). Your right to the Health Benefits may not be liquidated or exchanged for any other benefit.

If your employment with the Company terminates pursuant to this Section I, upon and following the Involuntary Termination Date, your other compensation and benefits continue to be governed by the terms of the plans in which you participate; provided however, that payments and benefits under this Section I are in lieu of any other involuntary separation benefits or severance payments which you may be eligible to receive from the Company; and if you receive severance pay and benefits under the Company’s Change in Control Severance Plan, no payments will be made, or benefits provided, under this Agreement or the Alcoa USA Corp. Involuntary Separation Plan (or successor plan).

In the event that, as of the Involuntary Termination Date, you are not a “specified employee” (as described above), and the 60 day period following your Involuntary Termination Date specified herein for payment of any of the amounts due to you under this Section I.B. spans two calendar years, any such payment will be made in the second calendar year.

Restrictive Covenants

You acknowledge that to the extent that you are a party to any noncompetition, nonsolicitation or other restrictive covenants or confidentiality agreements with the Company (collectively, “Restrictive Covenants”), the terms of such Restrictive Covenants, shall remain in full force and effect.

Tax Withholding

You shall be solely responsible for all taxes owed with respect to all payments and benefits provided hereunder. You must pay all applicable foreign, federal and state income and employment withholding taxes when due. The Company shall be entitled to withhold from amounts to be paid to you hereunder any federal, state or local withholding or other taxes or charges (or foreign equivalents of such taxes or charges) which it is from time to time required to withhold.

Application of 409A Provisions

If you provide a written, unqualified opinion from your tax advisor to the Company stating that you are a non-resident alien not subject to 409A at the time of your termination of employment, or that 409A otherwise does not apply to you at that time, unless the Company has reason to believe that such opinion is more likely than not incorrect, the Company shall cooperate with you to amend this Agreement in a mutually satisfactory manner to cause any severance payments payable hereunder to be paid as soon as practicable following your termination of employment, and to otherwise remove references to Section 409A from this Agreement; provided that in no event shall such payments be made unless and until you have returned an executed Release Agreement (signed by you on or following your termination date) and any period within which you may revoke the Release Agreement pursuant to the terms thereof has expired without you having revoked the Release Agreement. The Company shall have no responsibility for any taxes or penalties you may incur on account of any such amendments, whether pursuant to 409A or otherwise.

Governing Law: Jurisdiction

This Agreement shall be governed and interpreted in accordance with the laws of the State of Delaware without reference to its choice of law principles. Any action arising out of or related to this Agreement shall be brought in the state or Federal courts located in Pittsburgh, Pennsylvania, and you and the Company consent to the jurisdiction and venue of such courts.

Amendment: Waiver

No provision of this Agreement may be modified, waived, or discharged unless such waiver, modification or discharge is in writing and signed by the Chief Executive Officer of the Company as authorized by the Board or the Compensation and Benefits Committee of the Board (or successor committee). Any failure by you or the Company to enforce any of the provisions of this Agreement shall not be construed to be a waiver of such provisions or any right to enforce each and every provision in the future. A waiver of any breach of this Agreement shall not be construed as a waiver of any other or subsequent breach.

Successors: Binding Agreement

The Company shall have the right to assign its rights and obligations under this Agreement to any entity that acquires all or substantially all of the assets of the Company and continues the Company's business. The rights and obligations of the Company under this Agreement shall inure to the benefit and shall be binding upon the successors and assigns of the Company.

Severability

In the event that any one or more of the provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remainder of this Agreement shall not in any way be affected or impaired thereby.

Entire Agreement

You acknowledge that you have not relied upon any representations (whether oral or written) from the Company, other than as set forth in this Agreement. This Agreement sets forth the entire agreement and understanding between you and the Company and merges and supersedes any and all prior discussions, agreements, arrangements and understandings with regard to the subject matter hereof, and may not be modified, amended, discharged or supplemented in any respect, except by a subsequent writing signed by you and the Company. In the event that any payments under this Agreement in the aggregate are more than 2.99 times of your base salary and bonus, the payments which you will be eligible to receive under this Agreement will be reduced accordingly. Except for involuntary separation benefits or other similar severance payments, this Agreement does not supersede the terms of any other compensation plans, stock option programs, welfare benefit plans, or other such plans or programs in which you are eligible to participate, or may become eligible to participate.

If you agree to the terms of this Agreement, please sign on the line provided below and return two signed copies to the Secretary. A fully executed copy will be returned to you for your files after it is signed by the Company.

Termination of Officer Status and Agreement

You hereby acknowledge and agree that, in the event you cease to be an “officer” of the Company (meaning, an officer designated by the Board or a committee thereof), and remain employed with the Company in another continuing role thereafter, this Agreement shall immediately terminate and become null and void upon such Board determination date and you shall not have any right to payments or benefits provided hereunder.

IN WITNESS WHEREOF, the Executive and the Company, by its duly authorized representative, have executed this Agreement on the dates stated below, effective as of the date first set forth above.

COMPANY:

ALCOA CORPORATION

By: _____
Title: _____
Date: _____

EXECUTIVE:

[NAME]

By: _____
Title: _____
Date: _____

Certifications

I, Roy C. Harvey, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Alcoa Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 31, 2019

/s/ ROY C. HARVEY

Name: Roy C. Harvey

Title: President and Chief Executive Officer

Certifications

I, William F. Oplinger, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Alcoa Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 31, 2019

/s/ WILLIAM F. OPLINGER

Name: William F. Oplinger

Title: Executive Vice President and Chief Financial Officer

Certification
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), each of the undersigned officers of Alcoa Corporation, a Delaware corporation, (the "Company") does hereby certify that:

The Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 (the "Form 10-Q") of the Company fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 31, 2019

/s/ ROY C. HARVEY

Name: Roy C. Harvey

Title: President and Chief Executive Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished to the Securities and Exchange Commission as an exhibit to the Form 10-Q and shall not be considered filed as part of the Form 10-Q.

Certification
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), each of the undersigned officers of Alcoa Corporation, a Delaware corporation, (the "Company") does hereby certify that:

The Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 (the "Form 10-Q") of the Company fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 31, 2019

/s/ WILLIAM F. OPLINGER

Name: William F. Oplinger

Title: Executive Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished to the Securities and Exchange Commission as an exhibit to the Form 10-Q and shall not be considered filed as part of the Form 10-Q.

- (1) The MSHA assigns an identification number to each mine or operation and may or may not assign separate identification numbers to related facilities. The information provided in this table is presented by mine or operation rather than the MSHA identification number because that is how Alcoa Corporation manages and operates its business, and management believes that this presentation is more useful to investors.
- (2) Under the Interagency Agreement dated March 29, 1979 between the MSHA, the U.S. Department of Labor, and The Occupational Safety and Health Administration, alumina refineries (such as Alcoa Corporation's Point Comfort facility) are subject to MSHA jurisdiction.
- (3) Represents the total number of citations issued under section 104 of the Mine Act, for violations of mandatory health or safety standards that could significantly and substantially contribute to a serious injury if left unabated. This includes the citations listed under the column headed section 104(d).
- (4) Represents the total number of orders issued under section 104(b) of the Mine Act, which represents a failure to abate a citation under section 104(a) within the period prescribed by the MSHA. This results in an order of immediate withdrawal from the area of the mine affected by the condition until the MSHA determines that the violation has been abated.
- (5) Represents the total number of citations and orders issued under section 104(d) of the Mine Act for unwarrantable failure to comply with mandatory health or safety standards.
- (6) Represents the total number of flagrant violations identified under section 110(b)(2) of the Mine Act.
- (7) Represents the total number of imminent danger orders issued under section 107(a) of the Mine Act.
- (8) Amounts represent the total dollar value of proposed assessments received.

During the quarter ended September 30, 2019, Alcoa Corporation had no mining-related fatalities, and none of the Company's mining operations received written notice from the MSHA of a pattern of, or the potential to have a pattern of, violations of mandatory health or safety standards that are of such nature as could have significantly and substantially contributed to the cause and effect of mine health or safety hazards under section 104(e) of the Mine Act.

The Federal Mine Safety and Health Review Commission (the "Commission") is an independent adjudicative agency that provides administrative trial and appellate review of legal disputes arising under the Mine Act. As of September 30, 2019, Alcoa Corporation had one matter pending before the Commission concerning a retaliation complaint filed by an employee in 2015. On December 17, 2017, this matter was dismissed by an Administrative Law Judge after a trial on the merits; however, the employee appealed this decision to the Commission, where the matter is pending.