Form 5500

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Annual Return/Report of Employee Benefit Plan

This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

▶ **Complete all entries in accordance with the instructions to the Form 5500.**

OMB Nos. 1210-0110
1210-0089

2018

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A This return/report is for:
- [ ] a multiemployer plan
- [ ] a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)
- [X] a single-employer plan
- [ ] a DFE (specify) ____

B This return/report is:
- [ ] the first return/report
- [ ] the final return/report
- [ ] an amended return/report
- [ ] a short plan year return/report (less than 12 months)

C If the plan is a collectively-bargained plan, check here. . . . . ▶ [X]

D Check box if filing under:
- [X] Form 5558
- [ ] automatic extension
- [ ] the DFVC program
- [ ] special extension (enter description)

Part II Basic Plan Information—enter all requested information

1a Name of plan
EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

1b Three-digit plan number (PN) ▶ 001

1c Effective date of plan 03/01/1972

2a Plan sponsor's name (employer, if for a single-employer plan)
Mailing address (include room, apt., suite no. and street, or P.O. Box)
City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions)

LONZA INC.

412 MOUNT KEMBLE AVENUE
SUITE 200S
MORRISTOWN, NJ 07960

2b Employer Identification Number (EIN)
13-5665861

2c Plan Sponsor's telephone number
201-316-9200

2d Business code (see instructions)
325100

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	10/15/2019	ALICIA ALCOSSER
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

3a	Plan administrator's name and address [X] Same as Plan Sponsor	**3b**	Administrator's EIN
		3c	Administrator's telephone number
4	If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: **a** Sponsor's name **c** Plan Name	**4b**	EIN
		4d	PN

5	Total number of participants at the beginning of the plan year	**5**	655
6	Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines **6a(1), 6a(2), 6b, 6c,** and **6d**).		
a(1)	Total number of active participants at the beginning of the plan year	**6a(1)**	148
a(2)	Total number of active participants at the end of the plan year	**6a(2)**	136
b	Retired or separated participants receiving benefits	**6b**	312
c	Other retired or separated participants entitled to future benefits	**6c**	160
d	Subtotal. Add lines **6a(2)**, **6b**, and **6c**	**6d**	608
e	Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	**6e**	45
f	Total. Add lines **6d** and **6e**.	**6f**	653
g	Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**6g**	
h	Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	**6h**	0
7	Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	**7**	

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:

1A 3H 1I

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply)		**9b** Plan benefit arrangement (check all that apply)	
(1)	[ ] Insurance	**(1)**	[X] Insurance
(2)	[ ] Code section 412(e)(3) insurance contracts	**(2)**	[ ] Code section 412(e)(3) insurance contracts
(3)	[X] Trust	**(3)**	[X] Trust
(4)	[ ] General assets of the sponsor	**(4)**	[ ] General assets of the sponsor

10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- **(1)** [X] **R** (Retirement Plan Information)
- **(2)** [ ] **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
- **(3)** [X] **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

- **(1)** [X] **H** (Financial Information)
- **(2)** [ ] **I** (Financial Information – Small Plan)
- **(3)** [ ] 0 **A** (Insurance Information)
- **(4)** [X] **C** (Service Provider Information)
- **(5)** [X] **D** (DFE/Participating Plan Information)
- **(6)** [ ] **G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ..... ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ..... ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2018 Form M-1 annual report. If the plan was not required to file the 2018 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code_____

SCHEDULE SB (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Single-Employer Defined Benefit Plan Actuarial Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500 or 5500-SF.**

OMB No. 1210-0110

2018

This Form is Open to Public Inspection

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

▶ **Round off amounts to nearest dollar.**

▶ **Caution:** A penalty of $1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan
EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
LONZA INC.

D Employer Identification Number (EIN)
13-5665861

E Type of plan: [X] Single [ ] Multiple-A [ ] Multiple-B

F Prior year plan size: [ ] 100 or fewer [ ] 101-500 [X] More than 500

Part I Basic Information

1 Enter the valuation date: Month 01 Day 01 Year 2018

2 Assets:

a Market value	**2a**	103068865
b Actuarial value	**2b**	97028769

3 Funding target/participant count breakdown

	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
a For retired participants and beneficiaries receiving payment	341	71578279	71578279
b For terminated vested participants	175	9858061	9858061
c For active participants	148	13145776	13514219
d Total	664	94582116	94950559

4 If the plan is in at-risk status, check the box and complete lines (a) and (b) [ ]

a Funding target disregarding prescribed at-risk assumptions	**4a**	
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	**4b**	
5 Effective interest rate	**5**	5.60 %
6 Target normal cost	**6**	835000

Statement by Enrolled Actuary

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE

Signature of actuary

10/11/2019
Date

LIANA PETRUSO
Type or print name of actuary

17-07060
Most recent enrollment number

WILLIS TOWERS WATSON US LLC
Firm name

203-326-5400
Telephone number (including area code)

3001 SUMMER STREET
STAMFORD, CT 06905
Address of the firm

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions [ ]

Part II Beginning of Year Carryover and Prefunding Balances

		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	0
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8)	0	0
10	Interest on line 9 using prior year's actual return of 16.49 %	0	0
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		8300581
	b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of 5.82%		483094
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
	c Total available at beginning of current plan year to add to prefunding balance		8783675
	d Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	0

Part III Funding Percentages

14	Funding target attainment percentage	14	102.18%
15	Adjusted funding target attainment percentage	15	102.18%
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	96.23%
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls

18 Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
01/25/2019	700000	0			
02/22/2019	700000	0			
04/26/2019	700000	0			
05/28/2019	700000	0			
08/28/2019	1740000	0			
			Totals ► 18(b)	4540000	18(c) 0

19	Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:		
	a Contributions allocated toward unpaid minimum required contributions from prior years	19a	0
	b Contributions made to avoid restrictions adjusted to valuation date	19b	0
	c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	4207660

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? [X] Yes [ ] No

b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? [X] Yes [ ] No

c If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year

(1) 1st	(2) 2nd	(3) 3rd	(4) 4th
0	0	0	0

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:

a Segment rates:

1st segment:	2nd segment:	3rd segment:	
3.92%	5.52%	6.29%	☐ N/A, full yield curve used

b Applicable month (enter code)	**21b**	4
22 Weighted average retirement age	**22**	61

23 Mortality table(s) (see instructions)

Prior regulation: ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

Current regulation: ☐ Prescribed - combined ☐ Prescribed - separate ☐ Substitute

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No

25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No

26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. ☒ Yes ☐ No

27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	**27**	

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	**28**	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	**29**	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	**30**	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):

a Target normal cost (line 6)	**31a**	835000
b Excess assets, if applicable, but not greater than line 31a	**31b**	835000

32 Amortization installments:

	Outstanding Balance	Installment
a Net shortfall amortization installment	0	0
b Waiver amortization installment	0	0

33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	**33**	
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	**34**	0

	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	0	0

36 Additional cash requirement (line 34 minus line 35)	**36**	0
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	**37**	4207660

38 Present value of excess contributions for current year (see instructions)

a Total (excess, if any, of line 37 over line 36)	**38a**	4207660
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	**38b**	0
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	**39**	0
40 Unpaid minimum required contributions for all years	**40**	0

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:

a Schedule elected ☐ 2 plus 7 years ☐ 15 years

b Eligible plan year(s) for which the election in line 41a was made ☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011

SCHEDULE C (Form 5500)	Service Provider Information	OMB No. 1210-0110
Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ **File as an attachment to Form 5500.**	**2018** **This Form is Open to Public Inspection.**

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A Name of plan
EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500
LONZA INC.

D Employer Identification Number (EIN)
13-5665861

Part I Service Provider Information (see instructions)

You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions). . . . . [X] Yes [ ] No

b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

SOUTHEASTERN ASSET MANAGEMENT

62-0951781

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

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(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

STATE STREET BANK AND TRUST

04-1867445

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
19 25 28 50 51 62 68 99 63	NONE	84257	Yes [X] No [ ]	Yes [X] No [ ]	0	Yes [ ] No [X]

(a) Enter name and EIN or address (see instructions)

TOWERS WATSON DELAWARE INC.

53-0181291

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
11 16 17 50	NONE	54156	Yes [ ] No [X]	Yes [ ] No [ ]		Yes [ ] No [ ]

(a) Enter name and EIN or address (see instructions)

NELSON MULLINS RILEY & SCARBOROUGH

57-0215445

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
29 50	NONE	27388	Yes [ ] No [X]	Yes [ ] No [ ]		Yes [ ] No [ ]

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

RCL ADVISORS

20-5867247

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
27 51	NONE	24604	Yes [ ] No [X]	Yes [ ] No [ ]		Yes [ ] No [ ]

(a) Enter name and EIN or address (see instructions)

WISS & COMPANY, LLP

22-1732349

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
10 50	NONE	16500	Yes [ ] No [X]	Yes [ ] No [ ]		Yes [ ] No [ ]

(a) Enter name and EIN or address (see instructions)

MACQUARIE INVESTMENT MANAGEMENT

23-2859590

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
27 51 52 99	NONE	13191	Yes [X] No [ ]	Yes [X] No [ ]	0	Yes [ ] No [X]

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

STATE STREET RETIREE SERVICES

04-3581074

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
12 13 15 50	NONE	5306	Yes [ ] No [X]	Yes [ ] No [ ]		Yes [ ] No [ ]

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes [ ] No [ ]	Yes [ ] No [ ]		Yes [ ] No [ ]

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes [ ] No [ ]	Yes [ ] No [ ]		Yes [ ] No [ ]

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received $1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)

(complete as many entries as needed)

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

SCHEDULE D (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

DFE/Participating Plan Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2018

This Form is Open to Public Inspection.

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A Name of plan
EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

B Three-digit plan number (PN) ▶ 001

C Plan or DFE sponsor's name as shown on line 2a of Form 5500
LONZA INC.

D Employer Identification Number (EIN)
13-5665861

Part I **Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs)**
(Complete as many entries as needed to report all interests in DFEs)

a Name of MTIA, CCT, PSA, or 103-12 IE: LONZA AMERICA INC. MASTER RTMT TRUS

b Name of sponsor of entity listed in (a): LONZA AMERICA INC.

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
22-3539405-001	M	89041375

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

Part II Information on Participating Plans (to be completed by DFEs)

(Complete as many entries as needed to report all participating plans)

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

SCHEDULE H (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Financial Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2018

This Form is Open to Public Inspection

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A Name of plan
EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500
LONZA INC.

D Employer Identification Number (EIN)
13-5665861

Part I Asset and Liability Statement

1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)	9460000	4540000
(2) Participant contributions	1b(2)		
(3) Other	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
(2) U.S. Government securities	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)		
(9) Value of interest in common/collective trusts	1c(9)		
(10) Value of interest in pooled separate accounts	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)	93812706	89041375
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds)	1c(13)		
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)		
(15) Other	1c(15)		

			(a) Beginning of Year	(b) End of Year
1d	Employer-related investments:			
	(1) Employer securities	1d(1)		
	(2) Employer real property	1d(2)		
e	Buildings and other property used in plan operation	1e		
f	Total assets (add all amounts in lines 1a through 1e)	1f	103272706	93581375
	Liabilities			
g	Benefit claims payable	1g		
h	Operating payables	1h		
i	Acquisition indebtedness	1i		
j	Other liabilities	1j	274234	152024
k	Total liabilities (add all amounts in lines 1g through1j)	1k	274234	152024
	Net Assets			
l	Net assets (subtract line 1k from line 1f)	1l	102998472	93429351

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

	Income		(a) Amount	(b) Total
a	**Contributions:**			
	(1) Received or receivable in cash from: **(A)** Employers	2a(1)(A)	4540000	
	(B) Participants	2a(1)(B)		
	(C) Others (including rollovers)	2a(1)(C)		
	(2) Noncash contributions	2a(2)		
	(3) Total contributions. Add lines **2a(1)(A), (B), (C),** and line **2a(2)**	2a(3)		4540000
b	**Earnings on investments:**			
	(1) Interest:			
	(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)		
	(B) U.S. Government securities	2b(1)(B)		
	(C) Corporate debt instruments	2b(1)(C)		
	(D) Loans (other than to participants)	2b(1)(D)		
	(E) Participant loans	2b(1)(E)		
	(F) Other	2b(1)(F)		
	(G) Total interest. Add lines **2b(1)(A)** through **(F)**	2b(1)(G)		0
	(2) Dividends: **(A)** Preferred stock	2b(2)(A)		
	(B) Common stock	2b(2)(B)		
	(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)		
	(D) Total dividends. Add lines **2b(2)(A)**, **(B)**, and **(C)**	2b(2)(D)		0
	(3) Rents	2b(3)		
	(4) Net gain (loss) on sale of assets: **(A)** Aggregate proceeds	2b(4)(A)		
	(B) Aggregate carrying amount (see instructions)	2b(4)(B)		
	(C) Subtract line **2b(4)(B)** from line **2b(4)(A)** and enter result	2b(4)(C)		0
	(5) Unrealized appreciation (depreciation) of assets: **(A)** Real estate	2b(5)(A)		
	(B) Other	2b(5)(B)		
	(C) Total unrealized appreciation of assets. Add lines **2b(5)(A)** and **(B)**	2b(5)(C)		0

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		-6415193
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		
c Other income	2c		
d Total income. Add all **income** amounts in column (b) and enter total	2d		-1875193
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	6889305	
(2) To insurance carriers for the provision of benefits	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines **2e(1)** through **(3)**	2e(4)		6889305
f Corrective distributions (see instructions)	2f		
g Certain deemed distributions of participant loans (see instructions)	2g		
h Interest expense	2h		
i Administrative expenses: **(1)** Professional fees	2i(1)	98044	
(2) Contract administrator fees	2i(2)		
(3) Investment advisory and management fees	2i(3)	153599	
(4) Other	2i(4)	552980	
(5) Total administrative expenses. Add lines **2i(1)** through **(4)**	2i(5)		804623
j Total expenses. Add all **expense** amounts in column (b) and enter total	2j		7693928
Net Income and Reconciliation			
k Net income (loss). Subtract line **2j** from line **2d**	2k		-9569121
l Transfers of assets:			
(1) To this plan	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) [ ] Unqualified **(2)** [ ] Qualified **(3)** [X] Disclaimer **(4)** [ ] Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)? [X] Yes [ ] No

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: WISS & COMPANY, LLP **(2)** EIN: 22-1732349

d The opinion of an independent qualified public accountant is **not attached** because:

(1) [ ] This form is filed for a CCT, PSA, or MTIA. **(2)** [ ] It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

		Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.)	4a		X	
b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)	4b		X	

			Yes	No	Amount
c	Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)	4c		X	
d	Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)	4d		X	
e	Was this plan covered by a fidelity bond?	4e	X		1000000
f	Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	4f		X	
g	Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?	4g		X	
h	Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?	4h		X	
i	Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	4i		X	
j	Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.)	4j		X	
k	Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	4k		X	
l	Has the plan failed to provide any benefit when due under the plan?	4l		X	
m	If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	4m			
n	If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.	4n			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? ☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	**5b(2)** EIN(s)	**5b(3)** PN(s)

5c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (See ERISA section 4021.)? ..... ☒ Yes ☐ No ☐ Not determined
If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 4159014. (See instructions.)

SCHEDULE R (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Retirement Plan Information

This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2018

This Form is Open to Public Inspection.

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A Name of plan
EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500
LONZA INC.

D Employer Identification Number (EIN)
13-5665861

Part I Distributions

All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions **1** 0

2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits):

EIN(s): 04-1867445

Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.

3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year **3** 0

Part II Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)

4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? ..... ☐ **Yes** ☒ **No** ☐ **N/A**

If the plan is a defined benefit plan, go to line 8.

5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. **Date:** Month _____ Day _____ Year _____

If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.

6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived) **6a**

b Enter the amount contributed by the employer to the plan for this plan year **6b**

c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount) **6c**

If you completed line 6c, skip lines 8 and 9.

7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ..... ☐ **Yes** ☐ **No** ☐ **N/A**

8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change? ..... ☐ **Yes** ☐ **No** ☒ **N/A**

Part III Amendments

9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box. ..... ☐ **Increase** ☐ **Decrease** ☐ **Both** ☒ **No**

Part IV ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.

10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan? ..... ☐ **Yes** ☐ **No**

11 a Does the ESOP hold any preferred stock? ..... ☐ **Yes** ☐ **No**

b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.) ..... ☐ **Yes** ☐ **No**

12 Does the ESOP hold any stock that is not readily tradable on an established securities market? ..... ☐ **Yes** ☐ **No**

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that contributed more than 5% of total contributions to the plan during the plan year (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify):

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

14 Enter the number of participants on whose behalf no contributions were made by an employer as an employer of the participant for:

a The current year	**14a**	
b The plan year immediately preceding the current plan year	**14b**	
c The second preceding plan year	**14c**	

15 Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year	**15a**	
b The corresponding number for the second preceding plan year	**15b**	

16 Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year	**16a**	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	**16b**	

17 If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment. ☐

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

18 If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

19 If the total number of participants is 1,000 or more, complete lines (a) through (c)

a Enter the percentage of plan assets held as:
Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____%

b Provide the average duration of the combined investment-grade and high-yield debt:
☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more

c What duration measure was used to calculate line 19(b)?
☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify):

WISS
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INDEPENDENT AUDITORS' REPORT

The Retirement Committee of Lonza Inc.
Employees' Retirement Plan of Lonza Inc.

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of the Employees' Retirement Plan of Lonza Inc. (the "Plan"), which comprise the statements of net assets available for benefits as of December 31, 2018 and 2017, the related statements of changes in net assets available for benefits for the years then ended, the statement of accumulated plan benefits as of December 31, 2017, the related statement of changes in accumulated plan benefits for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on conducting the audits in accordance with auditing standards generally accepted in the United States of America. Because of the matter described in the Basis for Disclaimer of Opinion paragraph, however, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion.

Basis for Disclaimer of Opinion

As permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974, the Plan Administrator instructed us not to perform, and we did not perform, any auditing procedures with respect to the information summarized in Note 5, which was certified by State Street Bank and Trust Company, the Trustee of the Plan, except for comparing the information with the related information included in the financial statements. We have been informed by the Plan Administrator that the Trustee holds the Plan's investment assets and executes investment transactions. The Plan Administrator has obtained a certification from the Trustee as of and for the years ended December 31, 2018 and 2017, that the information provided to the Plan Administrator by the Trustee is complete and accurate.

Disclaimer of Opinion

Because of the significance of the matter described in the Basis for Disclaimer of Opinion paragraph, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion. Accordingly, we do not express an opinion on these financial statements.

Report on Form and Content in Compliance with DOL Rules and Regulations

The form and content of the information included in the financial statements, other than that derived from the information certified by the Trustee, have been audited by us in accordance with auditing standards generally accepted in the United States of America and, in our opinion, are presented in compliance with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974.

WISS & COMPANY, LLP

Livingston, New Jersey
October 9, 2019

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

	December 31, 2018	December 31, 2017
ASSETS:		
Investment in Lonza America Inc. Master Trust, at fair value	$ 89,041,375	$ 93,812,706
Employer contributions receivable	4,540,000	9,460,000
Total assets	93,581,375	103,272,706
LIABILITY -		
Accrued administrative expenses	152,024	274,234
Net Assets Available for Benefits	$ 93,429,351	$ 102,998,472

See accompanying notes to financial statements.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

	Year Ended December 31,	
	2018	2017
(REDUCTIONS)/ADDITIONS TO NET ASSETS ATTRIBUTED TO:		
Investment (loss)/income in Lonza America Inc. Master Trust	$ (6,415,193)	$ 13,446,764
Employer contributions	4,540,000	10,342,322
Total (Reductions)/Additions, net	(1,875,193)	23,789,086
DEDUCTIONS FROM NET ASSETS ATTRIBUTED TO:		
Benefits paid to participants	6,889,305	9,868,241
Administrative expenses	804,623	1,058,990
Total Deductions	7,693,928	10,927,231
NET (DECREASE)/INCREASE	(9,569,121)	12,861,855
NET ASSETS AVAILABLE FOR BENEFITS, BEGINNING OF YEAR	102,998,472	90,136,617
NET ASSETS AVAILABLE FOR BENEFITS, END OF YEAR	$ 93,429,351	$ 102,998,472

See accompanying notes to financial statements.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

STATEMENT OF ACCUMULATED PLAN BENEFITS

DECEMBER 31, 2017

ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS:

Participants currently receiving payments	$	72,407,012
Active participants		13,552,736
Participants with deferred benefits		10,129,513
		96,089,261
Nonvested accumulated benefits		327,943
Total Actuarial Present Value of Accumulated Plan Benefits	$	96,417,204

See accompanying notes to financial statements.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

STATEMENT OF CHANGES IN ACCUMULATED PLAN BENEFITS

YEAR ENDED DECEMBER 31, 2017

Actuarial Present Value of Accumulated Plan Benefits at January 1, 2017	$ 101,576,509
Increase/(decrease) during the year attributable to:	
Actuarial gains	(689,278)
Change in discount period	5,633,198
Assumption changes	(234,984)
Benefits paid	(9,868,241)
Net decrease	(5,159,305)
Actuarial Present Value of Accumulated Plan Benefits at December 31, 2017	$ 96,417,204

See accompanying notes to financial statements.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

NOTES TO FINANCIAL STATEMENTS

Note 1 - Description of Plan:

The following description is intended to give a general summary of the significant provisions of the Employees' Retirement Plan of Lonza Inc. (the "Plan"). Interested Plan participants should refer to the full Plan document for more detailed explanations and information regarding the Plan's provisions.

General - The Plan is a noncontributory, defined benefit pension plan subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA). The Plan is sponsored by Lonza Inc. (the "Company"), a wholly owned subsidiary of Lonza America Inc. ("LAI").

On January 1, 2007, the Plan sponsor decided to freeze the Employees' Retirement Plan of Lonza Inc., as defined. As a result, any employee hired after January 1, 2007 is not allowed entrance into the Plan. All employees previously covered by the Plan continue to be covered by the Plan and are fully vested in their accrued benefits.

Effective December 31, 2007, the Plan was amended to freeze benefit accruals for all participants other than those participants who attain age 50 by June 30, 2008. Also, participants who were eligible to receive a disability retirement benefit under the Plan as of December 31, 2007, continued to accrue benefits under the provisions of the Plan without the application of a benefit freeze. Effective December 31, 2010, the Plan was amended to freeze all benefit accruals for all participants. In addition, all participants are 100% vested in their accrued benefit.

Pension Benefits - Under the terms of the Plan, participants are eligible for pension benefits upon reaching the normal retirement age of 65. Monthly benefit payments are computed by multiplying the number of years of credited service by a benefit rate, subject to certain limitations specified in the Plan. Retirees may elect to receive pension benefits in various forms of annuity options. Lump-sum cash distributions are provided for present value distributions of $5,000 or less. Participants may also elect early retirement after attainment of age 55 and completion of five years of vesting service, as defined, and be able to receive actuarially reduced benefit payments commencing immediately at the early retirement date (after attainment of age 62, the participant is entitled to unreduced benefits).

Death and Survivorship Benefits - The surviving spouse of any deceased participant is entitled to a death benefit payable contingent upon the participant's employment status, age and years of credited service on the date of death.

Disability Benefits - The Plan also provides for disability retirement benefits for participants experiencing total and permanent disability occurring on or after completion of at least ten years of credited service. The normal monthly pension benefit is payable at the participant's normal retirement date and is computed in the same manner as a normal retirement pension benefit as if the participant remained employed until the normal retirement date and Plan-eligible compensation had remained unchanged.

Deferred Vested Pension Benefits - Participants terminating for reasons other than death, disability, or retirement who have completed five or more years of credited service are eligible for deferred vested pension benefits after attaining normal retirement age or at age 55 if the conditions for early retirement are fulfilled. Early retirement benefits are at a reduced percentage of normal retirement benefits based on the participant's age at the date of benefit commencement. The Plan provides for the full benefit upon attaining the age of 62.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

NOTES TO FINANCIAL STATEMENTS

Trust Managed by the Trustee - The assets of the Lonza America Inc Master Retirement Trust are held and managed by State Street Bank and Trust Company (the "Trustee") for the years ended December 31, 2018 and 2017. Under the terms of the agreement between LAI and the Trustee, the Trustee manages Lonza America Inc. Master Retirement Trust on behalf of the Plan. The Trustee has been granted discretionary authority concerning purchases and sales of investments in the Lonza America Inc. Master Retirement Trust in accordance with the general guidelines established by the Plan Administrator. Additionally, the Plan's Retirement Committee (the "Committee") regularly reviews the investment performance with an independent investment advisor and the Committee may direct the acquisition and disposition of the assets of the Plan.

Funding Policy - The Company's policy is to make contributions to provide the benefits under the Plan and is subject to the provisions of ERISA. Contributions by the Company are based upon actuarial computations of the present value of future benefits to be paid to participants as of the beginning of the Plan year. The actuarial cost method used to determine employer contributions to the Plan is the projected unit credit method. In accordance with the Company's funding policy, contributions for 2018 and 2017 were within the minimum and maximum funding requirements of ERISA.

Note 2 - Summary of Significant Accounting Policies:

Basis of Accounting - The Plan's financial statements have been prepared on the accrual basis of accounting.

Use of Estimates - The preparation of financial statements, in conformity with accounting principles generally accepted in the United States of America, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of additions to and deductions in net assets available for benefits during the reporting period. Actual results, as determined at a later date, could differ from those estimates.

Investment Valuation and Income Recognition - Investments are reported at fair value. Fair value is 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 Plan's Retirement Committee determines the Plan's valuation policies utilizing information provided by its investments advisors, trustees, and insurance company. See Note 6 for a discussion of fair value measurements.

Investment income in Lonza America Inc. Master Retirement Trust consists of interest income, dividend income and net depreciation of investments. Purchase and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net depreciation includes the Plan's gains and losses on investments bought and sold as well as held during the year.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

NOTES TO FINANCIAL STATEMENTS

Administrative Expenses - The Plan's expenses are paid either by the Plan or the Company, as provided by the Plan document. Expenses that are paid directly by the Company are excluded from these financial statements. Certain expenses incurred in connection with general administration of the Plan that are paid by the Plan are recorded as deductions in the accompanying Statements of Changes in Net Assets Available for Benefits. Eligible expenses to the extent not reimbursed by the Company, include, but are not limited to, investment managers' fees, actuarial fees, legal fees, and audit fees. In addition, certain investment related expenses are included in net depreciation of fair value of investments presented in the accompanying Statements of Changes in Net Assets Available for Benefits. The Company provides internal accounting and administrative services to the Plan at no cost.

Risk and Uncertainties - The assets of the Lonza America Inc. Master Retirement Trust are primarily investment securities, which are monetary in nature. Investment securities, in general, are exposed to various risks, such as interest rate, credit and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the value of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements.

Plan contributions are made and the actuarial present value of accumulated plan benefits are prepared based on certain assumptions pertaining to interest rates, inflation rates and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term could be material to the financial statements.

The Plan may have investments in securities with contractual cash flows, such as asset backed securities, collateralized mortgage obligations and commercial mortgage backed securities, including securities backed by sub-prime mortgage loans. The value, liquidity and related income of these securities are sensitive to changes in economic conditions, including real estate value, delinquencies and defaults, and may be adversely affected by shifts in the market's perception of the issuers and changes in interest rates.

Concentration of Investment Risk - The Master Trust's investment in two funds comprises approximately 30% of total investments at December 31, 2018 and 2017, respectively.

Payment of Benefits - Benefit payments to participants are recorded upon distribution.

In 2017, the Company implemented a Lump Sum Window program that enabled all eligible deferred vested participants a one-time opportunity to elect a distribution of their entire benefit out of the Plan in an immediate lump sum or an immediate annuity, regardless of age. Eligible participants are offered this opportunity through a window period that ended on November 10, 2017. If any eligible participant chooses not to elect immediate commencement under the window program, their benefit remains payable under the normal terms of the Plan. Eligible participants include those who terminated employment with the Company (or a Lonza affiliated entity) prior to June 30, 2017 with a vested pension except: 1) those whose accrued pension is less than $5,000, 2) those who have a qualified domestic relations order ("QDRO") or pending QDRO related to their pension at the close of the window, 3) those who are already in pay status including those who are eligible for required minimum distributions; 4) participants who are rehired prior to the payment date of the window; and 5) participants who are totally and permanently disabled on or prior to the window date.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

NOTES TO FINANCIAL STATEMENTS

Subsequent Events - The Plan Administrator has evaluated subsequent events through October 9, 2019, the date the financial statements were available to be issued. The effects of those events and transactions that provide additional pertinent information about conditions that existed at the Statements of Net Assets Available for Benefits date have been recognized in the accompanying financial statements.

Note 3 - Plan Termination:

Although it has not expressed any intention to do so, the Company has the right to terminate the Plan subject to provisions set forth in ERISA. In the event the Plan terminates, the net assets of the Plan will be allocated, as prescribed by ERISA and its related regulations, in the following order:

a) Annuity benefits that former employees or their beneficiaries have been receiving for at least three years prior to the termination date of the Plan, or that employees eligible to retire for that three-year period would have been receiving if they had retired with benefits in the normal form of an annuity under the Plan. The amount is further limited to the lowest benefit that would be payable under the Plan provisions in effect at any time during the five years preceding Plan termination.

b) Other vested benefits insured by the Pension Benefit Guaranty Corporation (PBGC) up to the applicable limitations (discussed below).

c) All other vested benefits (that is vested benefits not insured by the PBGC).

d) All nonvested benefits.

Certain benefits under the Plan are insured by the PBGC if the Plan terminates. Generally, the PBGC guarantees most vested normal age retirement benefits, early retirement benefits, and certain disability and survivors' pensions. However, the PBGC does not guarantee all types of benefits under the Plan, and the amount of benefit protection is subject to certain limitations. Vested benefits under the Plan are guaranteed at the PBGC level in effect on the date of the Plan's termination. However, there is a statutory ceiling on the amount of an individual's monthly benefits that the PBGC guarantees, which is adjusted periodically.

Whether all the participants receive their benefits should the Plan terminate at some future date will depend on the adequacy, at the time, of the Plan's net assets to provide those benefits and may also depend on the level of benefits guaranteed by the PBGC.

Note 4 - Tax Status:

The Plan has received a determination letter from the Internal Revenue Service (IRS) dated June 11, 2018, stating that the Plan is qualified under Section 401(a) of the Internal Revenue Code (IRC) and, therefore, the related trust is exempt from taxation. Once qualified, the Plan is required to operate in conformity with the IRC to maintain its qualification. The Plan administrator believes the Plan is being operated in compliance with the applicable requirements of the IRC and, therefore, believes that the Plan is qualified and the related trust is tax exempt.

Accounting principles generally accepted in the United States of America require plan management to evaluate tax positions taken by the Plan and recognize a tax liability if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax period in progress.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

NOTES TO FINANCIAL STATEMENTS

Note 5 - Investment in the Lonza America Inc. Master Retirement Trust:

The Plan's investments are in a Master Trust, which was established for the investment of assets of the Plan and several other sponsored retirement plans. Each participating retirement plan has an undivided interest in the Master Trust. The assets of the Master Trust are held by the Trustee. The value of the Plan's interest in the Lonza America, Inc. Master Retirement Trust is based on the beginning of year value of the Plan's interest in the trust plus actual contributions and allocated investment income less actual distributions and allocated administrative expenses.

At both December 31, 2018 and 2017, the Plan's interest in the net assets of the Lonza America Inc. Master Retirement Trust was approximately 22%. Investment income and administrative expenses relating to the Lonza America Inc. Master Retirement Trust are allocated to the individual participating plans based upon average monthly balances invested by each plan. Those expenses which are specifically identifiable to the Plan are charged in full to the Plan. The Plan's specific interest in the net assets of the Lonza America Inc. Master Retirement Trust is neither senior nor subordinate to the specific interest of the other plans participating in the Lonza America Inc. Master Retirement Trust.

All investment information disclosed in the accompanying financial statements and schedules, including investments held at December 31, 2018 and 2017, and net depreciation in fair value of investments, interest, dividends, and investment expenses for the years ended December 31, 2018 and 2017, were obtained or derived from information supplied to the Plan Administrator and certified as complete and accurate by the Trustee.

The following table presents the fair value of assets for the Lonza America Inc. Master Retirement Trust as of December 31, 2018 and 2017, certified as complete and accurate by the Trustee.

	December 31,	
	2018	2017
Interest bearing cash	$ 8,383,303	$ 10,044,003
U.S. government and corporate debt securities	47,887,069	48,625,631
Mutual funds	184,756,430	229,391,886
Common stock	55,870,667	62,242,937
Common collective trust	106,298,663	81,562,231
Total investments	403,196,132	431,866,688
Receivable for investments sold	1,033,714	6,090,520
Accrued income	383,439	482,531
Other receivable	34,358	60,042
Total assets	404,647,643	438,499,781
Payable for investments purchased	2,180,156	10,936,727
Net assets available to participating plans	$ 402,467,487	$ 427,563,054
Plan's investment in Lonza America Inc. Master Retirement Trust	$ 89,041,375	$ 93,812,706

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

NOTES TO FINANCIAL STATEMENTS

Investment (loss)/income of the Lonza America Inc. Master Retirement Trust for the years ended December 31, 2018 and 2017, certified as complete and accurate by the Trustee is as follows:

	Year Ended December 31,	
	2018	2017
Lonza America Inc. Master Retirement Trust investment (loss)/income:		
Interest	$ 1,789,819	$ 1,460,763
Dividends	14,052,976	9,071,868
Loss from pooled funds	(287,674)	(391,244)
Net realized (loss)/gain	(5,503,471)	12,520,005
Net unrealized (depreciation)/appreciation	(39,101,321)	39,627,882
Total Lonza America Inc. Master Retirement Trust investment (loss)/income available to participating plans	$ (29,049,671)	$ 62,289,274
Plan's share of investment (loss)/income in Lonza America Inc. Master Retirement Trust	$ (6,415,193)	$ 13,446,764

The following are the changes in net assets for the Master Trust for the year ended December 31, 2018 and 2017.

	December 31,	
	2018	2017
Net (depreciation)/appreciation in fair value of investments	$ (44,892,467)	$ 51,756,643
Dividends and interest income	15,842,796	10,532,631
Net investment (loss)/income	(29,049,671)	62,289,274
Employer contributions	36,000,000	43,000,000
Benefits paid to participants	(28,689,293)	(42,276,952)
Administrative expenses	(3,356,603)	(3,991,227)
(Decrease)/Increase in net assets	$ (25,095,567)	$ 59,021,095
Net assets available for benefits:		
Beginning of year	$ 427,563,054	$ 368,541,959
End of year	$ 402,467,487	$ 427,563,054

See Note 6 for all relevant fair value disclosures related to investment in the Master Trust including valuation methodologies used and leveling within the fair value hierarchy.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

NOTES TO FINANCIAL STATEMENTS

Note 6 - Fair Value Measurements:

Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 820, *Fair Value Measurements*, provides the framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy under FASB ASC 820 are described as follows:

Level 1 - Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2 - Inputs to the valuation methodology include:

- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability;
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 - Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for assets and liabilities measured at fair value. There have been no changes in the methodologies used at December 31, 2018 and 2017.

- *Interest bearing cash:* Valued at the closing price in a similar market in which the fund is traded.
- *Mutual funds:* Valued at the closing price reported on the active market in which the fund is traded.
- *Common stock:* Valued at the closing price reported on the active market in which the security is traded.
- *Common collective trust:* Valued at net asset value (NAV) of units as reported in the audited financial statements by the investment manager. The NAV, as provided by the Trustee, is used as a practical expedient to estimate fair value. The NAV is based on the fair value of the underlying investments held by the fund less its liabilities.
- *US government and corporate debt securities:* Valued at the closing price reported in the active market in which the individual investment is traded. Certain corporate bonds are valued at the closing price reported in the active market in which the bond is traded. Other corporate bonds are valued based on yields currently available on comparable securities of issuers with similar credit ratings.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

NOTES TO FINANCIAL STATEMENTS

The preceding methods may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although management believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following table sets forth by level, within the fair value hierarchy, the Master Trust's investments at fair value as of December 31, 2018 and 2017, respectively.

Master Trust's Investments at Fair Value as of December 31, 2018

	Level 1	*Level 2*	*Level 3*	*Total*
Interest bearing cash	$ -	$ 8,383,303	$ -	$ 8,383,303
U.S. government and corporate debt securities	45,719,542	2,167,527	-	47,887,069
Mutual funds	184,756,430	-	-	184,756,430
Common stocks	55,870,667	-	-	55,870,667
Total investments in the fair value hierarchy	$ 286,346,639	$ 10,550,830	$ -	296,897,469
Investments measured at net asset value (a)				106,298,663
Total master trust's investments, at fair value				$ 403,196,132

Master Trust's Investments at Fair Value as of December 31, 2017

	Level 1	*Level 2*	*Level 3*	*Total*
Interest bearing cash	$ -	$ 10,044,003	$ -	$ 10,044,003
U.S. government securities	48,343,514	282,117	-	48,625,631
Mutual funds	229,391,886	-	-	229,391,886
Common stocks	62,242,937	-	-	62,242,937
Total investments in the fair value hierarchy	$ 339,978,337	$ 10,326,120	$ -	350,304,457
Investments measured at net asset value (a)				81,562,231
Total master trust's investments, at fair value				$ 431,866,688

(a) In accordance with Subtopic 820-10, certain investments that were measured at net asset value per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the line items presented in the Statement of Net Assets available for Benefits.

At December 31, 2018 and 2017 the Master Trust had assets and liabilities consisting of a receivable for investments sold, accrued income, other receivable, and a payable for investments purchased. These assets and liabilities equal or approximate fair value due to the underlying assets being common stocks, U.S. government securities, and interest bearing cash.

EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

NOTES TO FINANCIAL STATEMENTS

Transfers Between Levels

The availability of observable market data is monitored to assess the appropriate classification of financial instruments within the fair value the fair value hierarchy. Changes in economic conditions or model-based valuation techniques may require the transfer of financial instruments from one fair value level to another. In such instances, the transfer is reported at the beginning of the reporting period. For the years ended December 31, 2018 and 2017, there were no significant transfers in or out of levels 1, 2, or 3.

Fair Value of Investments in Entities that Use Net Asset Value:

The following table summarizes investments measured at fair value based on net asset value (NAVs) per share as of December 31, 2018 and 2017.

	Fair Value		Unfunded	Redemption	Redemption
	2018	2017	Commitments	Frequency	Notice Period
State Street S&P 500 Flagship Non Lending Fund	$ 74,356,604	$ 81,562,231	None	Daily	None
Artisan FDS Inc	$ 31,942,059	$ -	None	Daily	None

Note 7 - Accumulated Plan Benefits:

Accumulated plan benefits are those estimated future payments that are attributable under the Plan's provisions to the service that employees have rendered to the valuation date. Accumulated Plan benefits include benefits expected to be paid to (a) retired or terminated employees or their beneficiaries, and (b) present employees or their beneficiaries. Benefits payable under all circumstances - retirement, death, disability, and termination of employment - are included to the extent that they are deemed attributable to employee service rendered to the valuation date.

The actuarial present value of accumulated Plan benefits is determined by the Plan's consulting actuaries and is the amount that results from applying actuarial assumptions to adjust the accumulated Plan benefits to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements such as for death, disability, withdrawal, or retirement) between the actuarial valuation date and the expected date of payment.

The actuarial valuation was performed as of January 1, 2018; however, there are no material differences between the values determined as of that date and those presented as of December 31, 2017. The significant actuarial assumptions used in the valuation as of January 1, 2018 were: (a) assumed discount interest rate of 5.75%; (b) weighted average retirement age of 60.9; (c) separate rates for non-annuitants and annuitants, based on RP-2014 mortality tables projected generationally with Scale MP-2018. The projected unit credit method was used to determine contributions to the Plan. These actuarial assumptions are based on the presumption that the Plan will continue. Were the Plan to terminate different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated Plan benefits.

Note 8 - Party-in-Interest:

The assets of the Master Trust invested in funds of the Trustee are considered party-in-interest transactions. The Trustee is a party-in-interest as a provider of investment management and custodial services to the trust funds.

SCHEDULE SB ATTACHMENTS

Schedule SB, Line 26
Schedule of Active Participant Data as of January 1, 2018

	Attained Years of Credited Service[2]										
Attained Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 25	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0
35-39	0	6	3	0	0	0	0	0	0	0	9
40-44	0	6	4	2	0	0	0	0	0	0	12
45-49	0	13	7	8	1	1	0	0	0	0	30
50-54	0	5	3	6	6	3	0	0	0	0	23
55-59	0	9	5	6	8	6	3	0	0	0	37
60-64	0	4	2	4	9	7	5	1	0	0	32
65-69	0	0	1	0	0	1	0	1	0	0	3
70 & over	0	0	2	0	0	0	0	0	0	0	2
Total	0	43	27	26	24	18	8	2	0	0	148

[2] Age and service for purposes of determining category are based on exact (not rounded) values.

Plan Name: Employees' Retirement Plan of Lonza Inc.
EIN / PN: 13-5665861 / 001
Plan Sponsor: Lonza Inc.
Valuation Date January 1, 2018

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Statement of Actuarial Assumptions/Methods

Economic Assumptions

Interest rate basis:

■ Applicable month	September 2017
■ Yield curve basis	Segment rates

Interest rates:	**Reflecting Corridors**	**Not Reflecting Corridors [1]**
■ First segment rate	3.92%	1.75%
■ Second segment rate	5.52%	3.76%
■ Third segment rate	6.29%	4.66%
■ Effective interest rate	5.60%	3.91%

Annual rates of increase

■ Compensation	N/A
■ Future Social Security wage base	N/A

[1] Rates not reflecting stabilization are used to determine PBGC variable rate premiums if the alternative method is used, and are used to determine the PBGC FTAP and the PBGC 4010 FS.

SCHEDULE SB ATTACHMENTS

Demographic Assumptions

Inclusion date

The valuation date coincident with or next following the date on which the employee becomes a participant.

New or rehired employees

It was assumed there will be no new or rehired employees.

Mortality

Separate rates for non-annuitants (based on RP-2000 "Employees" table without collar or amount adjustments, projected to 2033 using Scale AA) and annuitants (based on RP-2000 "Healthy Annuitants" table without collar or amount adjustments, projected to 2025 using Scale AA)

Disability

None

Termination

Rates varying by age and service

Representative Termination Rates

	Termination Rate		
Age	Less than one year of service	One year of service	Two plus years of service
16-39	25.0%	23.0%	13.0%
40-49	10.0%	8.0%	8.0%
50-60	8.0%	6.0%	5.0%
61-65	0.0%	0.0%	0.0%

Retirement

Active employees are expected to retire as shown below:

Age	Proportion Electing to retire during the year
55	5%
56-59	10%
60	15%
61	10%
62	35%
63-64	10%
65-66	50%
67	100%

The weighted average retirement age is 60.9.

SCHEDULE SB ATTACHMENTS

Benefit Commencement Date

■ Retirement Benefit	Upon termination of employment
■ Deferred Vested Benefit	For employees in the legacy ERP: at age 62 For employees in the legacy Conalco plan: at age 65
■ Preretirement Death Benefit	The later of the death of the active participant or the date the participant would have attained age 55.

Form of payment	100% of participants elect a life annuity.
Percent married	For employees in the legacy ERP: 90% of males and 50% of females are assumed to be married. For employees in the legacy Conalco plan: 100% of males and females are assumed to be married.
Spouse age	Wife three years younger than husband.
Covered pay	N/A
Administrative expenses	Normal cost includes a provision for administrative expenses. The amount included for plan related expenses is $835,000 determined by taking the plan's previous year's actual administrative expenses adjusted for changes in the PBGC premium.
Timing of benefit payments	Annuity payments are payable monthly at the beginning of the month.

Methods

Valuation date	First day of plan year
Funding target	Present value of accrued benefits as required by regulations under IRC §430.

SCHEDULE SB ATTACHMENTS

Target normal cost

Present value of benefits expected to accrue during the plan year plus plan-related expenses expected to be paid from plan assets during the plan year as required by regulations under IRC §430.

Actuarial value of assets

Average of the fair market value of assets on the valuation date and the two immediately preceding valuation dates, adjusted for contributions, benefits, administrative expenses and expected earnings of 5.75% (with such expected earnings limited as described in IRS Notice 2009-22). The average asset value must be within 10% of market value, including contributions receivable (discounted using the effective interest rate for the prior plan year).

The method of computing the actuarial value of assets complies with rules governing the calculation of such values under the Pension Protection Act of 2006 (PPA). These rules produce smoothed values that reflect the underlying market value of plan assets but fluctuate less than the market value. As a result, the actuarial value of assets will be lower than the market value in some years and greater in other years. However, over the long term under PPA's smoothing rules, the method has a significant bias to produce an actuarial value of assets that is below the market value of assets.

Benefits not valued

All benefits described in the Plan Provisions section of this report were valued based on discussions with Lonza regarding the likelihood that these benefits will be paid. Willis Towers Watson has reviewed the plan provisions with Lonza and, based on that review, is not aware of any significant benefits required to be valued that were not.

The plan pays small benefits (with a present value up to $5,000) in a lump sum. Such lump sums are not explicitly valued; rather, such participants' benefits are valued using the benefit choice assumptions described above.

Assumptions Rationale - Significant Economic Assumptions for Contributions

Discount rate

The basis chosen was selected by the plan sponsor from among choices prescribed by law, all of which are based on observed market data over certain periods of time.

SCHEDULE SB ATTACHMENTS

Plan-related expenses	As required by regulations, plan-related expenses are calculated by estimating the expenses to be paid from the trust during the coming year (including, for example, expected PBGC premiums and actuarial, accounting, legal, administration and trustee fees to be paid from the trust). Administrative expenses were estimated by reflecting the expected PBGC premiums, and the actual expenses, other than PBGC premiums, paid from the trust the preceding year.
Assumed return for asset smoothing	The assumed return of 5.75% used for asset smoothing is the expected return on assets assumption chosen by the client with the help of their investment advisers for the 2018 plan year under U.S. GAAP. Although determining the expected rate of return on plan assets was not within the scope of our work, it is the client's best estimate and we determined that it does not significantly conflict with what would be reasonable based on their asset allocation.

Assumptions Rationale - Significant Demographic Assumptions

Mortality	Assumptions used for funding purposes are as prescribed by IRC §430(h). Note that the plan sponsor has decided, as allowed by regulation §1.430(h)(3)-1, to delay until the 2019 plan year updating the required mortality table to reflect the RP-2014 study and subsequent Society of Actuaries studies.
Termination	The termination rates reflect a best estimate of future experience. Valuation results are reviewed annually with respect to gains and losses caused by termination patterns different than assumed as well as annual consideration of whether any conditions have changed that would be expected to produce different results in the future.
Retirement	The retirement rates reflect a best estimate of future experience. Valuation results are reviewed annually with respect to gains and losses caused by retirement patterns different than assumed as well as annual consideration of whether any conditions have changed that would be expected to produce different results in the future.

SCHEDULE SB ATTACHMENTS

Benefit commencement date for deferred benefits

■ Deferred vested benefit	Deferred vested participants in the ERP group are assumed to begin benefits at age 62 (or current age if later) because the plan's experience is not considered to be credible, but it is expected that many participants will retire and begin benefits when benefits from the plan are paid unreduced at age 62.

Prescribed Methods

Funding methods

The methods used for funding purposes as described in Appendix A, including the method of determining plan assets, are "prescribed methods set by law", as defined in the actuarial standards of practice (ASOPs). These methods are required by IRC §430, or were selected by the plan sponsor from a range of methods permitted by IRC §430.

Sources of Data and Other Information

Lonza Inc. furnished participant data as of 1/1/2018. Information on assets, contributions and plan provisions was supplied by the plan sponsor. Data and other information were reviewed for reasonableness and consistency, but no audit was performed. Based on discussions with the plan sponsor, assumptions or estimates were made when data were not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

Changes in Assumptions and Methods

Change in assumptions since prior valuation

The segment interest rates used to calculate the funding target and target normal cost were updated from an applicable month of September 2016 to September 2017.

The required mortality table used to calculate the funding target and target normal cost was updated to include one additional year of projected mortality improvements.

The assumed plan-related expenses added to the normal cost were changed from $727,000 for 2017 to $835,000 for 2018.

Change in methods since prior valuation

None.

SCHEDULE SB (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Single-Employer Defined Benefit Plan Actuarial Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500 or 5500-SF.**

OMB No. 1210-0110

2018

This Form is Open to Public Inspection

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

▶ **Round off amounts to nearest dollar.**

▶ **Caution:** A penalty of $1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan
EMPLOYEES' RETIREMENT PLAN OF LONZA INC.

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
LONZA INC.

D Employer Identification Number (EIN)
13-5665861

E Type of plan: [X] Single [ ] Multiple-A [ ] Multiple-B

F Prior year plan size: [ ] 100 or fewer [ ] 101-500 [X] More than 500

Part I Basic Information

1 Enter the valuation date: Month 01 Day 01 Year 2018

2 Assets:

a Market value	**2a**	103,068,865
b Actuarial value	**2b**	97,028,769

3 Funding target/participant count breakdown

	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
a For retired participants and beneficiaries receiving payment	341	71,578,279	71,578,279
b For terminated vested participants	175	9,858,061	9,858,061
c For active participants	148	13,145,776	13,514,219
d Total	664	94,582,116	94,950,559

4 If the plan is in at-risk status, check the box and complete lines (a) and (b) [ ]

a Funding target disregarding prescribed at-risk assumptions	**4a**	
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	**4b**	
5 Effective interest rate	**5**	5.60%
6 Target normal cost	**6**	835,000

Statement by Enrolled Actuary

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE

LIANA PETRUSO LP — Signature of actuary

10/11/2019 — Date

LIANA PETRUSO — Type or print name of actuary

1707060 — Most recent enrollment number

WILLIS TOWERS WATSON US LLC — Firm name

203-326-5400 — Telephone number (including area code)

3001 SUMMER STREET

STAMFORD CT 06905 — Address of the firm

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions [ ]

Part II Beginning of Year Carryover and Prefunding Balances

		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	0
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8)	0	0
10	Interest on line 9 using prior year's actual return of 16.49%	0	0
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		8,300,581
	b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of 5.82%		483,094
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
	c Total available at beginning of current plan year to add to prefunding balance		8,783,675
	d Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	0

Part III Funding Percentages

14	Funding target attainment percentage	14	102.18%
15	Adjusted funding target attainment percentage	15	102.18%
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	96.23%
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls

18 Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
01/25/2019	700,000	0			
02/22/2019	700,000	0			
04/26/2019	700,000	0			
05/28/2019	700,000	0			
08/28/2019	1,740,000	0			
			Totals ► 18(b)	4,540,000	18(c) 0

19	Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:		
	a Contributions allocated toward unpaid minimum required contributions from prior years	19a	0
	b Contributions made to avoid restrictions adjusted to valuation date	19b	0
	c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	4,207,660
20	Quarterly contributions and liquidity shortfalls:		
	a Did the plan have a "funding shortfall" for the prior year?		[X] Yes [ ] No
	b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?		[X] Yes [ ] No
	c If line 20a is "Yes," see instructions and complete the following table as applicable:		

Liquidity shortfall as of end of quarter of this plan year

(1) 1st	(2) 2nd	(3) 3rd	(4) 4th
0	0	0	0

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:

a Segment rates:

1st segment:	2nd segment:	3rd segment:	
3.92 %	5.52 %	6.29%	☐ N/A, full yield curve used

b Applicable month (enter code)	**21b**	4
22 Weighted average retirement age	**22**	61

23 Mortality table(s) (see instructions)

Prior regulation: ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

Current regulation: ☐ Prescribed - combined ☐ Prescribed - separate ☐ Substitute

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment		☐ Yes ☒ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment		☐ Yes ☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment		☒ Yes ☐ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	**27**	

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	**28**	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	**29**	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	**30**	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):

a Target normal cost (line 6)	**31a**	835,000
b Excess assets, if applicable, but not greater than line 31a	**31b**	835,000

32 Amortization installments:

	Outstanding Balance	Installment
a Net shortfall amortization installment	0	0
b Waiver amortization installment	0	0

33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	**33**	
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	**34**	0

	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	0	0

36 Additional cash requirement (line 34 minus line 35)	**36**	0
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	**37**	4,207,660
38 Present value of excess contributions for current year (see instructions)		
a Total (excess, if any, of line 37 over line 36)	**38a**	4,207,660
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	**38b**	0
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	**39**	0
40 Unpaid minimum required contributions for all years	**40**	0

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:

a Schedule elected ☐ 2 plus 7 years ☐ 15 years

b Eligible plan year(s) for which the election in line 41a was made ☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011

SCHEDULE SB ATTACHMENTS

Schedule SB – Statement by Enrolled Actuary

Plan Sponsor	Lonza Inc.
EIN/PN	13-5665861 / 001
Plan Name	Employees' Retirement Plan of Lonza Inc.
Valuation Date	January 1, 2018
Enrolled Actuary	Liana Petruso
Enrollment Number	17-07060

The actuarial assumptions that are not mandated by IRC § 430 and regulations, represent the enrolled actuary's best estimate of anticipated experience under the plan, subject to the following conditions:

The actuarial valuation, on which the information in this Schedule SB is based, has been prepared in reliance upon the employee and financial data furnished by the plan administrator and the trustee. The enrolled actuary has not made a rigorous check of the accuracy of this information but has accepted it after reviewing it and concluding it is reasonable in relation to similar information furnished in previous years. The amounts of contributions and dates paid shown in Item 18 of Schedule SB were listed in reliance on information provided by the plan administrator and/or trustee.

SCHEDULE SB ATTACHMENTS

Schedule SB, Line 22
Description of Weighted Average Retirement Age
as of January 1, 2018

The average retirement age for Line 22 was calculated by creating a hypothetical life table with retirement as the only decrement, and then computing the average retirement age for the table.

(1) Assumed Retirement Ages	(2) Probability of Retirement	(3) Population Survivorship	(4) Number Retiring (2) * (3)	(5) Rate of Retirement (4) / 100,000	(6) Weighted Rate (1) x (5)
55	5.00%	100,000	5,000	5.00%	2.7500
56	10.00%	95,000	9,500	9.50%	5.3200
57	10.00%	85,500	8,550	8.55%	4.8735
58	10.00%	76,950	7,695	7.70%	4.4631
59	10.00%	69,255	6,926	6.93%	4.0860
60	15.00%	62,330	9,349	9.35%	5.6097
61	10.00%	52,980	5,298	5.30%	3.2318
62	35.00%	47,682	16,689	16.69%	10.3470
63	10.00%	30,993	3,099	3.10%	1.9526
64	10.00%	27,894	2,789	2.79%	1.7852
65	50.00%	25,105	12,552	12.55%	8.1590
66	50.00%	12,552	6,276	6.28%	4.1423
67	100.00%	6,276	6,276	6.28%	4.2050
Average age at retirement					**60.9**
Rounded for Schedule SB item 22					**61**

Plan Name: Employees' Retirement Plan of Lonza Inc.
EIN / PN: 13-5665861 / 001
Plan Sponsor: Lonza Inc.
Valuation Date January 1, 2018

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Statement of Actuarial Assumptions/Methods

Economic Assumptions

Interest rate basis:

n Applicable month	September 2017
n Yield curve basis	Segment rates

Interest rates:	**Reflecting Corridors**	**Not Reflecting Corridors [1]**
n First segment rate	3.92%	1.75%
n Second segment rate	5.52%	3.76%
n Third segment rate	6.29%	4.66%
n Effective interest rate	5.60%	3.91%

Annual rates of increase

n Compensation	N/A
n Future Social Security wage base	N/A

[1] Rates not reflecting stabilization are used to determine PBGC variable rate premiums if the alternative method is used, and are used to determine the PBGC FTAP and the PBGC 4010 FS.

SCHEDULE SB ATTACHMENTS

Demographic Assumptions

Inclusion date

The valuation date coincident with or next following the date on which the employee becomes a participant.

New or rehired employees

It was assumed there will be no new or rehired employees.

Mortality

Separate rates for non-annuitants (based on RP-2000 "Employees" table without collar or amount adjustments, projected to 2033 using Scale AA) and annuitants (based on RP-2000 "Healthy Annuitants" table without collar or amount adjustments, projected to 2025 using Scale AA)

Disability

None

Termination

Rates varying by age and service

Representative Termination Rates

	Termination Rate		
Age	Less than one year of service	One year of service	Two plus years of service
16-39	25.0%	23.0%	13.0%
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Active employees are expected to retire as shown below:

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56-59	10%
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63-64	10%
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67	100%

The weighted average retirement age is 60.9.

SCHEDULE SB ATTACHMENTS

Benefit Commencement Date

n Retirement Benefit	Upon termination of employment
n Deferred Vested Benefit	For employees in the legacy ERP: at age 62 For employees in the legacy Conalco plan: at age 65
n Preretirement Death Benefit	The later of the death of the active participant or the date the participant would have attained age 55.
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Percent married	For employees in the legacy ERP: 90% of males and 50% of females are assumed to be married. For employees in the legacy Conalco plan: 100% of males and females are assumed to be married.
Spouse age	Wife three years younger than husband.
Covered pay	N/A
Administrative expenses	Normal cost includes a provision for administrative expenses. The amount included for plan related expenses is $835,000 determined by taking the plan's previous year's actual administrative expenses adjusted for changes in the PBGC premium.
Timing of benefit payments	Annuity payments are payable monthly at the beginning of the month.

Methods

Valuation date	First day of plan year
Funding target	Present value of accrued benefits as required by regulations under IRC §430.

SCHEDULE SB ATTACHMENTS

Target normal cost

Present value of benefits expected to accrue during the plan year plus plan-related expenses expected to be paid from plan assets during the plan year as required by regulations under IRC §430.

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SCHEDULE SB ATTACHMENTS

Plan-related expenses	As required by regulations, plan-related expenses are calculated by estimating the expenses to be paid from the trust during the coming year (including, for example, expected PBGC premiums and actuarial, accounting, legal, administration and trustee fees to be paid from the trust). Administrative expenses were estimated by reflecting the expected PBGC premiums, and the actual expenses, other than PBGC premiums, paid from the trust the preceding year.
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The assumed plan-related expenses added to the normal cost were changed from $727,000 for 2017 to $835,000 for 2018.

Change in methods since prior valuation

None.

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Summary of Plan Provisions

1. Employees' Retirement Plan of Lonza Inc.

Plan Provisions

Effective date	Adopted March 1, 1972; last restated effective January 1, 2017. The Consolidated Aluminum Corporation Discontinued Operations Pension Plan was merged into this plan effective July 31, 2016.
Eligibility for participation	All employees of Lonza, Inc. hired prior to January 1, 2007 are covered under the pension plan and are eligible to participate as of the first day of the month after commencement of employment.

Definitions

Vesting service	One year of service for each anniversary year with at least 1,000 hours worked. Effective December 31, 2007, all participants were 100% vested in their accrued benefits.
Accrual service	One year of service for each anniversary year with at least 1,000 hours worked. In the year of termination, one month of service is credited for each month with at least one hour worked. Service for former employees of Universal Chemical Corporation, Quad Chemical Corporation, Glyco who terminated prior to January 1, 1989, Cyclo Products, Inc., UCB-Bioproducts, and Larex, Inc. prior to June 29, 1973; July 1, 1980; December 31, 1987; July 16, 1990; March 1, 2006; and May 16, 2006 respectively, will not be counted for benefit accrual purposes. If a former employee of SmithKline Beecham Corp. elected to receive benefits under the SmithKline Pension Plan, then service prior to April 1, 1992 will not be counted for benefit accrual purposes. If a former employee of SmithKline Beecham Corp. did not receive benefits under the SmithKline Pension Plan, then service that counted towards the plan will be included as accrual service.

SCHEDULE SB ATTACHMENTS

Employees of ALUSA will not be credited with additional Accrual Service after October 29, 1999.

Effective December 31, 2007, Accrual Service is frozen for all employees who are not 50 years of age by June 30, 2008.

Effective December 31, 2010, Accrual Service is frozen for all participants.

Certain participants whose accrual service was previously frozen as of December 31, 2007 received subsequent accruals through December 31, 2010 or the end of the plan year prior to their termination, if earlier, in order to correct a nondiscrimination test. Refer to Appendices D and E of the plan document.

Covered Compensation

The average of the taxable wage bases for the 35 calendar years ending with the year an individual attains Social Security Retirement Age.

Compensation

Total remuneration paid by Lonza to an employee including base pay, overtime, shift differentials, holiday pay, bonuses, vacation pay and sick pay and salary reductions made pursuant to Section 125, 132(f) or 401(k) of the Code, but excluding (i) amounts realized from the exercise of non-qualified stock option; (ii) amount realized from the sale, exchange, or disposition of a stock acquired under a qualified stock option; (iii) amounts attributable to certain allowances and expenses.

Final Average Compensation

The greater of

(a) The final 60-month average compensation (subject to IRS Sect. 401(a)(17) limit) immediately preceding termination or retirement; or

(b) The average of the annual compensation (subject to IRS Sect. 401 (a)(17) limit) for the highest 5 consecutive years of the last 10 years immediately prior to termination or retirement

SCHEDULE SB ATTACHMENTS

Annual Accrued Benefit

The benefit is the sum of (a), (b) and (c) as follows:

(a) 1.05% times Final Average Compensation not in excess of Covered Compensation times Accrual Service (maximum 35 years)

(b) 1.50% times Final Average Compensation in excess of Covered Compensation times Accrual Service (maximum 35 years)

(c) 1.40% times Final Average Compensation times Accrual Service in excess of 35 years

The benefit for a "401(a)(17) employee" is subject to the following minimum, the sum of (d) and (e):

(d) Frozen Accrued Benefit as of December 31, 1993, subject to the IRS Compensation limits in effect at the time

(e) Accrued Benefit by applying the above formula [(a) + (b) + (c)], but based on the Final Average Compensation and Accrual Service subsequent to December 31, 1993

A "401(a)(17) employee" is a participant whose accrued benefit after December 31, 1993 is based on compensation in excess of $150,000 for a plan year prior to January 1, 1994.

Effective December 31, 2007, accrued benefits were frozen for active participants who did not attain age 50 by June 30, 2008.

Effective December 31, 2010, all benefit accruals were frozen.

Certain participants whose accrual service was previously frozen as of December 31, 2007 received subsequent accruals through December 31, 2010 or the end of the plan year prior to their termination, if earlier, in order to correct a nondiscrimination test. Refer to Appendices D and E of the plan document.

Benefits Paid Upon the Following Events

Normal retirement

- Eligibility: Age 65
- Amount: The Accrued Benefit payable immediately

SCHEDULE SB ATTACHMENTS

Early retirement

n Eligibility	Age 55 and 5 years of Vesting Service
n Amount	The Accrued Benefit, payable at age 62 or reduced by 0.25% for the first 24 months that commencement precedes age 62, 1/3% for the next 12 months, 0.50% for the next 36 months and 1.00% for the next 12 months.

Supplemental Benefit

n Eligibility	An active participant who terminates employment prior to age 62, and immediately commences Early Retirement Benefits is entitled to receive a Supplemental Benefit until age 62.
n Amount	The annual Supplemental Benefit for 2011 is $267.25 times Accrual Service (maximum 30 years). The Supplemental Benefit is further adjusted by the factor used for the optional form of payment elected for Retirement Benefits. The annual Supplemental Benefit for new retirees is adjusted annually based on the Social Security cost-of-living adjustment (limited to a maximum of 5% per year).

Termination

n Eligibility	Termination with 5 years of Vesting Service. Effective December 31, 2007, all active participants were fully vested in their accrued benefits.
n Amount	The Accrued Benefit
n Benefit Commencement	Payable at age 65 or as early as age 55 with a reduced benefit. Reduction is same as for Early Retirement.

Disability Retirement Benefit

n Eligibility	Any age with 10 years of Vesting Service

SCHEDULE SB ATTACHMENTS

- Amount — Benefit determined as if employee had remained employed until retirement date and Compensation had remained unchanged. If benefit commencement is prior to Normal Retirement Date, retirement benefit is subject to early retirement reduction.

  For active employees as of December 31, 2007 who did not attain age 50 as of June 30, 2008, benefit accruals are frozen for purpose of this benefit. For the remaining active employees, as well as employees currently disabled, benefit accruals continue. However, all benefit accruals cease as of December 31, 2010.

- Benefit Commencement — Normal Retirement Date or Early Retirement Date at the employee's election.

Preretirement Surviving Spouse Benefit

- Eligibility — Death of a married participant with 5 years of vesting service.

- Amount — The amount which would be payable if the participant terminated on his/her date of death, elected payment for early or normal retirement in the form of a qualified joint and 50% survivor annuity, and died prior to the first payment.

- Benefit Commencement — At the time the employee would have attained age 55, or the first of the month following the death of the participant if the participant was eligible for an early retirement benefit. The spouse may elect to defer the benefit up to the employee's age 65.

Special Pre-retirement Survivor Benefit

- Eligibility — Death of an active Employee with at least 10 years of Vesting Service (in lieu of above Pre-retirement Surviving Spouse Benefit). The benefit is payable to the surviving spouse. If there is none, the benefit is payable in equal shares to any surviving children until the earlier of age 19, age 26 if child is still a full-time student, or date of child's death.

SCHEDULE SB ATTACHMENTS

n Amount	50% of the Accrued Benefit (Life Annuity) that would have been payable at Normal Retirement Date without reduction for Early Retirement.
n Benefit Commencement	First of the month coincident with or next following the death of the employee.
2013 Lump Sum Window	Terminated vested participants as of June 30, 2013 were eligible to elect, during a window starting October 7, 2013 and ending November 15, 2013, to receive a lump sum of their benefit, payable as of December 1, 2013. The window did not include participants who were already eligible to elect a small amount lump sum, and participants who had QDRO's or who were past their Required Minimum Distribution Date as of December 1, 2013.
Retiree Annuity Purchase	On November 21, 2016, Lonza entered into an agreement to purchase a Group Annuity Contract for certain retirees in the plan with monthly benefits under $750 from Voya Retirement Insurance and Annuity Company ("Voya").
2017 Lump Sum Window	The plan was amended effective September 1, 2017 to provide a temporary lump sum window to certain terminated vested participants in the plan. Terminated vested participants as of June 30, 2017 were eligible to elect, during a window starting September 29, 2017 and ending November 10, 2017, to receive a lump sum of their benefit, payable as of December 1, 2017. The window does not include former Conalco plan participants, participants who are already eligible to elect a small amount lump sum, and participants who have QDRO's or who are past their Minimum Required Distribution Date as of December 1, 2017.

Other Plan Provisions

Forms of payment

n Normal Form of Payment	(i) Unmarried Participant: Life Annuity (ii) Married Participant: Actuarially reduced 50% Joint & Survivor Annuity

SCHEDULE SB ATTACHMENTS

n	Optional Forms	(i) 50% Joint & Survivor Annuity
		(ii) 75% Joint & Survivor Annuity
		(iii) 100% Joint & Survivor Annuity
		(iv) 10-Year Certain and Life Annuity
		(v) Life Annuity (for married participants)

Actuarial equivalence basis for optional forms of payment is the Unisex Pension 1984 Mortality Table and 9.50% interest rate.

Future Plan Changes

None.

Changes in Benefits Valued Since Prior Year

None.

SCHEDULE SB ATTACHMENTS

2. Formerly Consolidated Aluminum Corp. Discontinued Operations Pension Plan ("Conalco")

Plan Provisions

Effective Date	Adopted January 1, 1983; last restated effective January 1, 2012. The plan was amended effective January 1, 2015 for the merger of the Painesville plan into this plan. As of July 31, 2016, the plan was merged into the Employees' Retirement Plan of Lonza Inc.
Eligibility for participation	All former employees who were Participants with benefit rights under a former pension plan that was merged into the Consolidated Aluminum Corp. Discontinued Operations Pension Plan are eligible.

Definitions

Monthly accrued benefit	The Accrued Benefit was determined under the provisions of the applicable prior plan. Participants will not receive any additional accruals.

Benefits paid upon the following events

Normal retirement

n Eligibility	Age 65.
n Amount	The Accrued Benefit payable immediately.

SCHEDULE SB ATTACHMENTS

Early retirement Varies according to the schedule below

- Eligibility

Group	Early Retirement Eligibility
Carrollton Hourly Employees	Age 60 & 15 years of service
City of Industry	Age 60 & 20 years of service
Columbia Hourly Employees	Age 60 & 10 years of service
Consolidated Aluminum Salaried Employees - Contract Carrier, Inc. - Ore Shipping Company	Age 60 & 10 years of service
Contract Carrier (Non-Union)	Age 60 & 10 years of service
Florence Die Shop	Age 60 & 20 years of service
Florence Local 355	Age 60 & 20 years of service
Gulfport Hourly Employees	Age 55 & 20 years of service
Lake Charles Hourly Employees	Age 60 & 10 years of service
Murphysboro Hourly Employees	Age 60 & 10 years of service
Nesquehoning Hourly Employees	Age 60 & 10 years of service
New Johnsonville Hourly Employees	Age 60 & 10 years of service
Newbern Hourly Employees	Age 60 & 10 years of service
Philadelphia Local 502	Age 62 & 15 years of service
Reed City Hourly Employees	Age 55 & 10 years of service
Shelbina Hourly Employees	Age 60 & 10 years of service

SCHEDULE SB ATTACHMENTS

n Amount

The Accrued Benefit reduced by 0.4% for each month by which benefit commencement precedes age 65, except for participants who were formerly in the following plans, who shall have their benefit reduced as follows:

Prior Pension Plan	Early Retirement Reduction
n Nesquehoning Hourly Employees' Pension Plan n Reed City Hourly Employees' Pension Plan n Shelbina Hourly Employees' Pension Plan	0.5% for each month by which benefit commencement precedes age 65.
Philadelphia Local 502 Pension Plan	5/9 of 1% for each month by which benefit commencement precedes age 65, with a maximum reduction of 20% at 62.
Contract Carrier, Inc. Pension Plan (Non-Union)	5/9 of 1% for each month by which benefit commencement precedes age 65.

Pre-retirement Death Benefit

n Eligibility

Retirement after Normal Retirement Date.

n Amount

The Accrued Benefit determined using service to the actual retirement date, payable immediately.

Other Plan Provisions

Forms of payment

n Normal Form of Payment

(i) Unmarried Participant: Life Annuity

(ii) Married Participant: Actuarially reduced 50% Joint & Survivor Annuity

SCHEDULE SB ATTACHMENTS

n Optional Forms	(iii) 50% Joint & Survivor Annuity (iv) 75% Joint & Survivor Annuity (v) 100% Joint & Survivor Annuity (vi) 10 Year Certain and Life Annuity (vii) Life Annuity (for married participants) (viii) Social Security Level Income (Lake Charles Plan Only) Actuarial Equivalence for optional forms: the Unisex Pension 1984 Mortality Table, and 10% interest. For forms of payment subject to section 417(e), the basis is no less than that provided by the IRS prescribed Applicable Mortality Table and the 417(e) Applicable Interest Rates with an annual stability period and a two-month lookback.
Retiree Annuity Purchase	On November 21, 2016, Lonza entered into an agreement to purchase a Group Annuity Contract for certain retirees in the plan with monthly benefits under $750 from Voya Retirement Insurance and Annuity Company ("Voya").

Future Plan Changes

None.

Changes in Benefits Valued Since Prior Year

None.

SCHEDULE SB ATTACHMENTS

Schedule SB, Line 26
Schedule of Active Participant Data as of January 1, 2018

	Attained Years of Credited Service[2]										
Attained Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 25	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0
35-39	0	6	3	0	0	0	0	0	0	0	9
40-44	0	6	4	2	0	0	0	0	0	0	12
45-49	0	13	7	8	1	1	0	0	0	0	30
50-54	0	5	3	6	6	3	0	0	0	0	23
55-59	0	9	5	6	8	6	3	0	0	0	37
60-64	0	4	2	4	9	7	5	1	0	0	32
65-69	0	0	1	0	0	1	0	1	0	0	3
70 & over	0	0	2	0	0	0	0	0	0	0	2
Total	0	43	27	26	24	18	8	2	0	0	148

[2] Age and service for purposes of determining category are based on exact (not rounded) values.

Plan Name: Employees' Retirement Plan of Lonza Inc.
EIN / PN: 13-5665861 / 001
Plan Sponsor: Lonza Inc.
Valuation Date January 1, 2018

SCHEDULE SB ATTACHMENTS

Schedule SB – Statement by Enrolled Actuary

Plan Sponsor	Lonza Inc.
EIN/PN	13-5665861 / 001
Plan Name	Employees' Retirement Plan of Lonza Inc.
Valuation Date	January 1, 2018
Enrolled Actuary	Liana Petruso
Enrollment Number	17-07060

The actuarial assumptions that are not mandated by IRC § 430 and regulations, represent the enrolled actuary's best estimate of anticipated experience under the plan, subject to the following conditions:

The actuarial valuation, on which the information in this Schedule SB is based, has been prepared in reliance upon the employee and financial data furnished by the plan administrator and the trustee. The enrolled actuary has not made a rigorous check of the accuracy of this information but has accepted it after reviewing it and concluding it is reasonable in relation to similar information furnished in previous years. The amounts of contributions and dates paid shown in Item 18 of Schedule SB were listed in reliance on information provided by the plan administrator and/or trustee.

SCHEDULE SB ATTACHMENTS

Schedule SB, Line 22
Description of Weighted Average Retirement Age
as of January 1, 2018

The average retirement age for Line 22 was calculated by creating a hypothetical life table with retirement as the only decrement, and then computing the average retirement age for the table.

(1) Assumed Retirement Ages	(2) Probability of Retirement	(3) Population Survivorship	(4) Number Retiring (2) * (3)	(5) Rate of Retirement (4) / 100,000	(6) Weighted Rate (1) x (5)
55	5.00%	100,000	5,000	5.00%	2.7500
56	10.00%	95,000	9,500	9.50%	5.3200
57	10.00%	85,500	8,550	8.55%	4.8735
58	10.00%	76,950	7,695	7.70%	4.4631
59	10.00%	69,255	6,926	6.93%	4.0860
60	15.00%	62,330	9,349	9.35%	5.6097
61	10.00%	52,980	5,298	5.30%	3.2318
62	35.00%	47,682	16,689	16.69%	10.3470
63	10.00%	30,993	3,099	3.10%	1.9526
64	10.00%	27,894	2,789	2.79%	1.7852
65	50.00%	25,105	12,552	12.55%	8.1590
66	50.00%	12,552	6,276	6.28%	4.1423
67	100.00%	6,276	6,276	6.28%	4.2050
Average age at retirement					**60.9**
Rounded for Schedule SB item 22					**61**

Plan Name: Employees' Retirement Plan of Lonza Inc.
EIN / PN: 13-5665861 / 001
Plan Sponsor: Lonza Inc.
Valuation Date January 1, 2018

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Summary of Plan Provisions

1. Employees' Retirement Plan of Lonza Inc.

Plan Provisions	
Effective date	Adopted March 1, 1972; last restated effective January 1, 2017. The Consolidated Aluminum Corporation Discontinued Operations Pension Plan was merged into this plan effective July 31, 2016.
Eligibility for participation	All employees of Lonza, Inc. hired prior to January 1, 2007 are covered under the pension plan and are eligible to participate as of the first day of the month after commencement of employment.

Definitions	
Vesting service	One year of service for each anniversary year with at least 1,000 hours worked. Effective December 31, 2007, all participants were 100% vested in their accrued benefits.
Accrual service	One year of service for each anniversary year with at least 1,000 hours worked. In the year of termination, one month of service is credited for each month with at least one hour worked. Service for former employees of Universal Chemical Corporation, Quad Chemical Corporation, Glyco who terminated prior to January 1, 1989, Cyclo Products, Inc., UCB-Bioproducts, and Larex, Inc. prior to June 29, 1973; July 1, 1980; December 31, 1987; July 16, 1990; March 1, 2006; and May 16, 2006 respectively, will not be counted for benefit accrual purposes. If a former employee of SmithKline Beecham Corp. elected to receive benefits under the SmithKline Pension Plan, then service prior to April 1, 1992 will not be counted for benefit accrual purposes. If a former employee of SmithKline Beecham Corp. did not receive benefits under the SmithKline Pension Plan, then service that counted towards the plan will be included as accrual service.

SCHEDULE SB ATTACHMENTS

Employees of ALUSA will not be credited with additional Accrual Service after October 29, 1999.

Effective December 31, 2007, Accrual Service is frozen for all employees who are not 50 years of age by June 30, 2008.

Effective December 31, 2010, Accrual Service is frozen for all participants.

Certain participants whose accrual service was previously frozen as of December 31, 2007 received subsequent accruals through December 31, 2010 or the end of the plan year prior to their termination, if earlier, in order to correct a nondiscrimination test. Refer to Appendices D and E of the plan document.

Covered Compensation

The average of the taxable wage bases for the 35 calendar years ending with the year an individual attains Social Security Retirement Age.

Compensation

Total remuneration paid by Lonza to an employee including base pay, overtime, shift differentials, holiday pay, bonuses, vacation pay and sick pay and salary reductions made pursuant to Section 125, 132(f) or 401(k) of the Code, but excluding (i) amounts realized from the exercise of non-qualified stock option; (ii) amount realized from the sale, exchange, or disposition of a stock acquired under a qualified stock option; (iii) amounts attributable to certain allowances and expenses.

Final Average Compensation

The greater of

(a) The final 60-month average compensation (subject to IRS Sect. 401(a)(17) limit) immediately preceding termination or retirement; or

(b) The average of the annual compensation (subject to IRS Sect. 401 (a)(17) limit) for the highest 5 consecutive years of the last 10 years immediately prior to termination or retirement

SCHEDULE SB ATTACHMENTS

Annual Accrued Benefit

The benefit is the sum of (a), (b) and (c) as follows:

(a) 1.05% times Final Average Compensation not in excess of Covered Compensation times Accrual Service (maximum 35 years)

(b) 1.50% times Final Average Compensation in excess of Covered Compensation times Accrual Service (maximum 35 years)

(c) 1.40% times Final Average Compensation times Accrual Service in excess of 35 years

The benefit for a "401(a)(17) employee" is subject to the following minimum, the sum of (d) and (e):

(d) Frozen Accrued Benefit as of December 31, 1993, subject to the IRS Compensation limits in effect at the time

(e) Accrued Benefit by applying the above formula [(a) + (b) + (c)], but based on the Final Average Compensation and Accrual Service subsequent to December 31, 1993

A "401(a)(17) employee" is a participant whose accrued benefit after December 31, 1993 is based on compensation in excess of $150,000 for a plan year prior to January 1, 1994.

Effective December 31, 2007, accrued benefits were frozen for active participants who did not attain age 50 by June 30, 2008.

Effective December 31, 2010, all benefit accruals were frozen.

Certain participants whose accrual service was previously frozen as of December 31, 2007 received subsequent accruals through December 31, 2010 or the end of the plan year prior to their termination, if earlier, in order to correct a nondiscrimination test. Refer to Appendices D and E of the plan document.

Benefits Paid Upon the Following Events

Normal retirement

- Eligibility — Age 65
- Amount — The Accrued Benefit payable immediately

SCHEDULE SB ATTACHMENTS

Early retirement

- Eligibility — Age 55 and 5 years of Vesting Service
- Amount — The Accrued Benefit, payable at age 62 or reduced by 0.25% for the first 24 months that commencement precedes age 62, 1/3% for the next 12 months, 0.50% for the next 36 months and 1.00% for the next 12 months.

Supplemental Benefit

- Eligibility — An active participant who terminates employment prior to age 62, and immediately commences Early Retirement Benefits is entitled to receive a Supplemental Benefit until age 62.
- Amount — The annual Supplemental Benefit for 2011 is $267.25 times Accrual Service (maximum 30 years). The Supplemental Benefit is further adjusted by the factor used for the optional form of payment elected for Retirement Benefits. The annual Supplemental Benefit for new retirees is adjusted annually based on the Social Security cost-of-living adjustment (limited to a maximum of 5% per year).

Termination

- Eligibility — Termination with 5 years of Vesting Service. Effective December 31, 2007, all active participants were fully vested in their accrued benefits.
- Amount — The Accrued Benefit
- Benefit Commencement — Payable at age 65 or as early as age 55 with a reduced benefit. Reduction is same as for Early Retirement.

Disability Retirement Benefit

- Eligibility — Any age with 10 years of Vesting Service

- Amount — Benefit determined as if employee had remained employed until retirement date and Compensation had remained unchanged. If benefit commencement is prior to Normal Retirement Date, retirement benefit is subject to early retirement reduction.

  For active employees as of December 31, 2007 who did not attain age 50 as of June 30, 2008, benefit accruals are frozen for purpose of this benefit. For the remaining active employees, as well as employees currently disabled, benefit accruals continue. However, all benefit accruals cease as of December 31, 2010.

- Benefit Commencement — Normal Retirement Date or Early Retirement Date at the employee's election.

Preretirement Surviving Spouse Benefit

- Eligibility — Death of a married participant with 5 years of vesting service.

- Amount — The amount which would be payable if the participant terminated on his/her date of death, elected payment for early or normal retirement in the form of a qualified joint and 50% survivor annuity, and died prior to the first payment.

- Benefit Commencement — At the time the employee would have attained age 55, or the first of the month following the death of the participant if the participant was eligible for an early retirement benefit. The spouse may elect to defer the benefit up to the employee's age 65.

Special Pre-retirement Survivor Benefit

- Eligibility — Death of an active Employee with at least 10 years of Vesting Service (in lieu of above Pre-retirement Surviving Spouse Benefit). The benefit is payable to the surviving spouse. If there is none, the benefit is payable in equal shares to any surviving children until the earlier of age 19, age 26 if child is still a full-time student, or date of child's death.

■ Amount	50% of the Accrued Benefit (Life Annuity) that would have been payable at Normal Retirement Date without reduction for Early Retirement.
■ Benefit Commencement	First of the month coincident with or next following the death of the employee.
2013 Lump Sum Window	Terminated vested participants as of June 30, 2013 were eligible to elect, during a window starting October 7, 2013 and ending November 15, 2013, to receive a lump sum of their benefit, payable as of December 1, 2013. The window did not include participants who were already eligible to elect a small amount lump sum, and participants who had QDRO's or who were past their Required Minimum Distribution Date as of December 1, 2013.
Retiree Annuity Purchase	On November 21, 2016, Lonza entered into an agreement to purchase a Group Annuity Contract for certain retirees in the plan with monthly benefits under $750 from Voya Retirement Insurance and Annuity Company ("Voya").
2017 Lump Sum Window	The plan was amended effective September 1, 2017 to provide a temporary lump sum window to certain terminated vested participants in the plan. Terminated vested participants as of June 30, 2017 were eligible to elect, during a window starting September 29, 2017 and ending November 10, 2017, to receive a lump sum of their benefit, payable as of December 1, 2017. The window does not include former Conalco plan participants, participants who are already eligible to elect a small amount lump sum, and participants who have QDRO's or who are past their Minimum Required Distribution Date as of December 1, 2017.

Other Plan Provisions

Forms of payment

■ Normal Form of Payment	(i) Unmarried Participant: Life Annuity (ii) Married Participant: Actuarially reduced 50% Joint & Survivor Annuity

SCHEDULE SB ATTACHMENTS

- Optional Forms
  - (i) 50% Joint & Survivor Annuity
  - (ii) 75% Joint & Survivor Annuity
  - (iii) 100% Joint & Survivor Annuity
  - (iv) 10-Year Certain and Life Annuity
  - (v) Life Annuity (for married participants)

  Actuarial equivalence basis for optional forms of payment is the Unisex Pension 1984 Mortality Table and 9.50% interest rate.

Future Plan Changes

None.

Changes in Benefits Valued Since Prior Year

None.

SCHEDULE SB ATTACHMENTS

2. Formerly Consolidated Aluminum Corp. Discontinued Operations Pension Plan ("Conalco")

Plan Provisions

Effective Date

Adopted January 1, 1983; last restated effective January 1, 2012. The plan was amended effective January 1, 2015 for the merger of the Painesville plan into this plan. As of July 31, 2016, the plan was merged into the Employees' Retirement Plan of Lonza Inc.

Eligibility for participation

All former employees who were Participants with benefit rights under a former pension plan that was merged into the Consolidated Aluminum Corp. Discontinued Operations Pension Plan are eligible.

Definitions

Monthly accrued benefit

The Accrued Benefit was determined under the provisions of the applicable prior plan. Participants will not receive any additional accruals.

Benefits paid upon the following events

Normal retirement

- Eligibility — Age 65.
- Amount — The Accrued Benefit payable immediately.

SCHEDULE SB ATTACHMENTS

Early retirement

Varies according to the schedule below

- Eligibility

Group	Early Retirement Eligibility
Carrollton Hourly Employees	Age 60 & 15 years of service
City of Industry	Age 60 & 20 years of service
Columbia Hourly Employees	Age 60 & 10 years of service
Consolidated Aluminum Salaried Employees ■ Contract Carrier, Inc. ■ Ore Shipping Company	Age 60 & 10 years of service
Contract Carrier (Non-Union)	Age 60 & 10 years of service
Florence Die Shop	Age 60 & 20 years of service
Florence Local 355	Age 60 & 20 years of service
Gulfport Hourly Employees	Age 55 & 20 years of service
Lake Charles Hourly Employees	Age 60 & 10 years of service
Murphysboro Hourly Employees	Age 60 & 10 years of service
Nesquehoning Hourly Employees	Age 60 & 10 years of service
New Johnsonville Hourly Employees	Age 60 & 10 years of service
Newbern Hourly Employees	Age 60 & 10 years of service
Philadelphia Local 502	Age 62 & 15 years of service
Reed City Hourly Employees	Age 55 & 10 years of service
Shelbina Hourly Employees	Age 60 & 10 years of service

- Amount — The Accrued Benefit reduced by 0.4% for each month by which benefit commencement precedes age 65, except for participants who were formerly in the following plans, who shall have their benefit reduced as follows:

Prior Pension Plan	Early Retirement Reduction
■ Nesquehoning Hourly Employees' Pension Plan ■ Reed City Hourly Employees' Pension Plan ■ Shelbina Hourly Employees' Pension Plan	0.5% for each month by which benefit commencement precedes age 65.
Philadelphia Local 502 Pension Plan	5/9 of 1% for each month by which benefit commencement precedes age 65, with a maximum reduction of 20% at 62.
Contract Carrier, Inc. Pension Plan (Non-Union)	5/9 of 1% for each month by which benefit commencement precedes age 65.

Pre-retirement Death Benefit

- Eligibility — Retirement after Normal Retirement Date.
- Amount — The Accrued Benefit determined using service to the actual retirement date, payable immediately.

Other Plan Provisions

Forms of payment

- Normal Form of Payment
  - (i) Unmarried Participant: Life Annuity
  - (ii) Married Participant: Actuarially reduced 50% Joint & Survivor Annuity

SCHEDULE SB ATTACHMENTS

- Optional Forms

  (iii) 50% Joint & Survivor Annuity

  (iv) 75% Joint & Survivor Annuity

  (v) 100% Joint & Survivor Annuity

  (vi) 10 Year Certain and Life Annuity

  (vii) Life Annuity (for married participants)

  (viii) Social Security Level Income (Lake Charles Plan Only)

  Actuarial Equivalence for optional forms: the Unisex Pension 1984 Mortality Table, and 10% interest. For forms of payment subject to section 417(e), the basis is no less than that provided by the IRS prescribed Applicable Mortality Table and the 417(e) Applicable Interest Rates with an annual stability period and a two-month lookback.

Retiree Annuity Purchase

On November 21, 2016, Lonza entered into an agreement to purchase a Group Annuity Contract for certain retirees in the plan with monthly benefits under $750 from Voya Retirement Insurance and Annuity Company (“Voya”).

Future Plan Changes

None.

Changes in Benefits Valued Since Prior Year

None.