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

2019

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2019 or fiscal plan year beginning 01/01/2019 and ending 12/31/2019

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
THE PENSION PLAN OF ARCH CHEMICALS

1b Three-digit plan number (PN) ▶ 003

1c Effective date of plan 01/01/1989

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)
ARCH CHEMICALS, INC.

C/O LONZA, LLC

412 MOUNT KEMBLE AVENUE
SUITE 200S
MORRISTOWN, NJ 07960

2b Employer Identification Number (EIN)
06-1526315

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.	10/15/2020	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**	1808
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)**	607
a(2) Total number of active participants at the end of the plan year	**6a(2)**	228
b Retired or separated participants receiving benefits	**6b**	826
c Other retired or separated participants entitled to future benefits	**6c**	592
d Subtotal. Add lines **6a(2)**, **6b**, and **6c**	**6d**	1646
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	**6e**	74
f Total. Add lines **6d** and **6e**	**6f**	1720
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 1B 1C 3H

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)**	[ ] 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 2019 Form M-1 annual report. If the plan was not required to file the 2019 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

2019

This Form is Open to Public Inspection

For calendar plan year 2019 or fiscal plan year beginning 01/01/2019 and ending 12/31/2019

▶ **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
THE PENSION PLAN OF ARCH CHEMICALS

B Three-digit plan number (PN) ▶ 003

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

D Employer Identification Number (EIN)
06-1526315

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 2019

2 Assets:

a Market value	**2a**	312213986
b Actuarial value	**2b**	329565551

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	798	243449558	243449558
b For terminated vested participants	422	25339155	25339155
c For active participants	607	56699499	58068090
d Total	1827	325488212	326856803

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**	5.49 %
6 Target normal cost	**6**	1694000

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 — Date: 10/15/2020

LIANA PETRUSO — Type or print name of actuary

20-07060 — 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 -6.91 %	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)		10960436
	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 5.66 %		620361
	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		11580797
	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	100.82 %
15	Adjusted funding target attainment percentage	15	100.82 %
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	102.75 %
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
02/26/2020	2250000	0			
03/30/2020	2250000	0			
04/27/2020	2250000	0			
06/25/2020	2250000	0			
			Totals ► 18(b)	9000000	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	8395464

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☒ No

b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ 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

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

21 Discount rate:

a Segment rates:

1st segment:	2nd segment:	3rd segment:	
3.74 %	5.35 %	6.11 %	☐ N/A, full yield curve used

b Applicable month (enter code)	**21b**	4
22 Weighted average retirement age	**22**	63

23 Mortality table(s) (see instructions) ☐ 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**	1694000
b Excess assets, if applicable, but not greater than line 31a	**31b**	1694000

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**	8395464

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

a Total (excess, if any, of line 37 over line 36)	**38a**	8395464
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.**	**2019** **This Form is Open to Public Inspection.**

For calendar plan year 2019 or fiscal plan year beginning 01/01/2019 and ending 12/31/2019

A Name of plan
THE PENSION PLAN OF ARCH CHEMICALS

B Three-digit plan number (PN) ▶ 003

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

D Employer Identification Number (EIN)
06-1526315

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

BRANDES INVESTMENT PARTNERS, L.P.

33-0704072

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

MACQUARIE INVESTMENT MANAGEMENT ADV

23-2859590

(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)

WILLIS TOWERS WATSON US LLC

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	469951	Yes [ ] No [X]	Yes [ ] No [ ]		Yes [ ] No [ ]

(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 63 68 99	NONE	96266	Yes [X] No [ ]	Yes [X] No [ ]	0	Yes [X] No [ ]

(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	64397	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)

FIDUCIARY INVESTMENT ADVISORS

20-4751585

(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 50	NONE	23926	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	18800	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	7886	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)

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 19 50	NONE	6685	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

2019

This Form is Open to Public Inspection.

For calendar plan year 2019 or fiscal plan year beginning 01/01/2019 and ending 12/31/2019

A Name of plan
THE PENSION PLAN OF ARCH CHEMICALS

B Three-digit plan number (PN) ▶ 003

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

D Employer Identification Number (EIN)
06-1526315

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	343223421

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

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

2019

This Form is Open to Public Inspection

For calendar plan year 2019 or fiscal plan year beginning 01/01/2019 and ending 12/31/2019

A Name of plan
THE PENSION PLAN OF ARCH CHEMICALS

B Three-digit plan number (PN) ▶ 003

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

D Employer Identification Number (EIN)
06-1526315

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)	11800000	9000000
(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)	300633188	343223421
(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	312433188	352223421
	Liabilities			
g	Benefit claims payable	1g		
h	Operating payables	1h		
i	Acquisition indebtedness	1i		
j	Other liabilities	1j	320331	138848
k	Total liabilities (add all amounts in lines 1g through1j)	1k	320331	138848
	Net Assets			
l	Net assets (subtract line 1k from line 1f)	1l	312112857	352084573

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)	9000000	
	(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)		9000000
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)		56917964
(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		65917964
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	23760723	
(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)		23760723
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)	496636	
(2) Contract administrator fees	2i(2)		
(3) Investment advisory and management fees	2i(3)	563129	
(4) Other	2i(4)	1125760	
(5) Total administrative expenses. Add lines **2i(1)** through **(4)**	2i(5)		2185525
j Total expenses. Add all **expense** amounts in column (b) and enter total	2j		25946248
Net Income and Reconciliation			
k Net income (loss). Subtract line **2j** from line **2d**	2k		39971716
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) ☐ Unmodified **(2)** ☐ Qualified **(3)** ☒ Disclaimer **(4)** ☐ Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)? ☒ 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 4246125. (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

2019

This Form is Open to Public Inspection.

For calendar plan year 2019 or fiscal plan year beginning 01/01/2019 and ending 12/31/2019

A Name of plan
THE PENSION PLAN OF ARCH CHEMICALS

B Three-digit plan number (PN) ▶ 003

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

D Employer Identification Number (EIN)
06-1526315

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** 77

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: 61.0 % Investment-Grade Debt: 28.0 % High-Yield Debt: 0.0 % Real Estate: 7.0 % Other: 4.0 %

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):

20 **PBGC missed contribution reporting requirements.** If this is a multiemployer plan or a single-employer plan that is not covered by PBGC, skip line 20.

a Is the amount of unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 greater than zero? ☐ Yes ☒ No

b If line 20a is "Yes," has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:

☐ Yes.

☐ No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.

☐ No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.

☐ No. Other. Provide explanation_____

INDEPENDENT AUDITORS' REPORT

The Retirement Committee of Lonza, LLC
The Pension Plan of Arch Chemicals

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of The Pension Plan of Arch Chemicals (the "Plan"), which comprise the statements of net assets available for benefits as of December 31, 2019 and 2018, 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, 2018, 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 4, 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, 2019 and 2018, 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 have not been 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

WISS & COMPANY, LLP

Florham Park, New Jersey
October 14, 2020

THE PENSION PLAN OF ARCH CHEMICALS

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

	December 31,	
	2019	2018
ASSETS:		
Investment in Lonza America Inc. Master Trust, at fair value	$ 343,223,421	$ 300,633,188
Employer contributions receivable	9,000,000	11,800,000
Total assets	352,223,421	312,433,188
LIABILITY -		
Accrued administrative expenses	138,848	320,331
Net Assets Available for Benefits	$ 352,084,573	$ 312,112,857

See accompanying notes to financial statements.

THE PENSION PLAN OF ARCH CHEMICALS

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

	Year Ended December 31,	
	2019	2018
ADDITIONS/(REDUCTIONS) TO NET ASSETS ATTRIBUTED TO:		
Investment income/(loss) in Lonza America, Inc. Master Trust	$ 56,917,964	$ (21,697,368)
Employer contributions	9,000,000	11,800,000
Total Additions/(Reductions), net	65,917,964	(9,897,368)
DEDUCTIONS FROM NET ASSETS ATTRIBUTED TO:		
Benefits paid to participants	23,760,723	20,833,168
Administrative expenses	2,185,525	2,281,075
Total Deductions	25,946,248	23,114,243
NET INCREASE/(DECREASE)	39,971,716	(33,011,611)
NET ASSETS AVAILABLE FOR BENEFITS, BEGINNING OF YEAR	312,112,857	345,124,468
NET ASSETS AVAILABLE FOR BENEFITS, END OF YEAR	$ 352,084,573	$ 312,112,857

See accompanying notes to financial statements.

THE PENSION PLAN OF ARCH CHEMICALS

STATEMENT OF ACCUMULATED PLAN BENEFITS

DECEMBER 31, 2018

ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS:	
Vested benefits:	
Participants currently receiving payments	$ 233,547,274
Active participants	56,559,776
Participants with deferred benefits	25,490,369
	315,597,419
Nonvested accumulated benefits	1,261,341
Total Actuarial Present Value of Accumulated Plan Benefits	$ 316,858,760

See accompanying notes to financial statements.

THE PENSION PLAN OF ARCH CHEMICALS

STATEMENT OF CHANGES IN ACCUMULATED PLAN BENEFITS

YEAR ENDED DECEMBER 31, 2018

Actuarial Present Value of Accumulated Plan Benefits at January 1, 2018	$ 321,516,111
Increase/(decrease) during the year attributable to:	
Actuarial losses	1,268,049
Change in discount period	17,896,594
Assumption changes	(2,988,826)
Benefits paid	(20,833,168)
Net decrease	(4,657,351)
Actuarial Present Value of Accumulated Plan Benefits at December 31, 2018	$ 316,858,760

See accompanying notes to financial statements.

THE PENSION PLAN OF ARCH CHEMICALS

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 Pension Plan of Arch Chemicals ("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 covering both union and nonunion employees. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA), as amended. The Plan is sponsored by Arch Chemicals Inc. (the "Company"), a wholly owned subsidiary of Lonza America Inc. ("LAI").

Effective November 15, 2011 the plan was frozen to all non-union new hires. Accordingly, no non-union employees that are hired on or after November 15, 2011 are eligible to participate in the Plan. Effective November 9, 2012 all benefit accruals were frozen for non-union participants. Participants became fully vested in their accrued benefits. Effective May 23, 2014 the Plan was amended to close plan entry, to freeze benefit accruals and vest active participants for collectively bargained employees of Local 703 of the United Steel, Paper and Forestry, Rubber Manufacturing, Energy, Allied Industrial and Service Workers International Union (USW), AFL-CIO at Conley, Georgia.

Pension Benefits - Participants are eligible to receive their vested benefits under the Traditional Plan upon retirement, or for Cash Balance participants, upon termination of employment provided the participant has attained age 55 or one year following termination if the participant has not yet attained age 55. Employees become fully vested in the Plan: (a) after five years of employment for employees hired prior to April 1, 2008 and participate in the grandfathered plan (the "Traditional Plan"); (b) three years, for employees hired on or after April 1, 2008, who participate in the new Personal Pension Account (the "Cash Balance Plan"); or (c) attainment of age 65. The Traditional Plan permits early retirement at age 55 with 10 credited years of service. For participants with a present value of vested benefits of $5,000 or less at the time of termination, benefits are distributed to them in the form of a lump sum cash out, or placed in a Rollover IRA (if between $1,000 and $5,000 and no election for distribution is made within the required timeframe). For participants in the Traditional Plan, who have more than $5,000 of vested benefits at the time of termination, benefits are paid in the form of an annuity upon attainment of a retirement age. For participants in the Cash Balance Plan, who have more than $5,000 of vested benefits at the time of termination, benefits are either paid in the form of an annuity or in the form of a lump sum upon attainment of age 55, or one year after termination of employment if not yet age 55.

Death and Disability Benefits - The Plan provides for death benefits to a spouse of a deceased participant who has met the vesting requirement but died prior to his or her benefit commencement date. A pre-retirement survivor benefit will be paid to the surviving spouse, provided the participant and spouse had been married throughout the one year period ending on the date of death.

If the participant in the Traditional Plan dies after attaining the age and years of service necessary to qualify for early retirement, the spouse shall receive an amount equal to that which the participant would have received had the participant retired before the day of his or her death, in the form of a 50% qualified joint and survivor annuity payment. For surviving spouses of participants in the Cash Balance Plan, their benefits can be paid in the form of a lifetime-only annuity or a lump sum. For non-spouse beneficiaries of participants in the Cash Balance Plan, the benefits will be paid in the form of a lump sum only.

In the event a participant becomes disabled before attaining his or her normal retirement age, the participant will become eligible for a disability retirement allowance as provided by the participant's respective Plan provisions.

THE PENSION PLAN OF ARCH CHEMICALS

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, 2019 and 2018. 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.

Participant Accounts - Under the Cash Balance Plan provisions, amounts are credited by the Company to the participants' hypothetical accounts. The accounts are allocated compensation credits and investment credits at the end of each year. The compensation credits are allocated based on a percentage of the participants' certified compensation as defined in the plan document for that year. Participants' hypothetical accounts also receive investment credits at the end of each year.

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 2019 and 2018 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 Trustees 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 appreciation/(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 appreciation/(depreciation) includes the Plan's gains and losses on investments bought and sold as well as held during the year.

THE PENSION PLAN OF ARCH CHEMICALS

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 appreciation/(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.

Risk and Uncertainties - The assets of the Lonza America Inc. Master Retirement Trust and common collective trusts 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 actuarial present value of accumulated Plan benefits are reported 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 33% and 30% of total investments at December 31, 2019 and 2018, respectively.

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

Newly Adopted Accounting Pronouncements - Effective January 1, 2019, the Plan adopted Accounting Standards Update ("ASU") 2017-06, which is applicable for retirement plans held in a Master Trust. The standard does not affect the Statements of Net Assets Available for Benefits or the Statements of Changes in Net Assets Available for Benefits, but it does require expanded disclosures (see Note 5). The prior period financial statement was not affected other than the related expanded disclosures.

Subsequent Events - The Plan Administrator has evaluated subsequent events through October 14, 2020, 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.

The full impact of the COVID-19 outbreak continues to evolve as of the date the financial statements were available to be issued. This pandemic has adversely affected global economic activity and greatly contributed to deterioration and instability in financial markets. Because the values of the Plan's individual investments have and will fluctuate in response to changing market conditions, the amount of potential losses that will be recognized in subsequent periods, if any, and related impact on the Plan's liquidity, cannot be determined at this time.

THE PENSION PLAN OF ARCH CHEMICALS

NOTES TO 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 - Investments Certified by the Trustee:

The Plan Administrator has elected the method of annual reporting compliance permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosures under ERISA. Accordingly, the Trustee has certified that the following information included in the financial statements is complete and accurate:

a) Investments, as shown in the statements of net assets available for benefits as of December 31, 2019 and 2018.

b) Investment income/(loss), as shown in the statements of changes in net assets available for benefits for the years ended December 31, 2019 and 2018.

The Plan's independent auditors did not perform auditing procedures with respect to this information, except for comparing such information to the related information included in the financial statements.

THE PENSION PLAN OF ARCH CHEMICALS

NOTES TO FINANCIAL STATEMENTS

Note 5 - Plan Interest in Master 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, 2019 and 2018, the Plan's interest in the net assets of the Lonza America Inc. Master Retirement Trust was approximately 75%. 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.

The following table presents the fair value of assets for the Master Trust and the Plan's interest in its investments as of December 31, 2019 and 2018, certified as complete and accurate by the Trustee.

	December 31, 2019		December 31, 2018	
	Master Trust Balances	Plan's Interest in the Master Trust	Master Trust Balances	Plan's Interest in the Master Trust
Interest bearing cash	$ 9,075,793	$ 6,759,511	$ 8,383,303	$ 6,262,119
U.S. government and corporate debt securities	50,142,086	37,345,054	47,887,069	35,770,448
Mutual funds	199,880,166	148,867,671	184,756,430	138,008,451
Common stock	63,279,435	47,129,549	55,870,667	41,733,997
Common collective trusts	138,080,514	102,840,242	106,298,663	79,402,453
Total investments	460,457,994	342,942,027	403,196,132	301,177,468
Receivable for investments sold	-	-	1,033,714	772,159
Accrued income	339,022	252,498	383,439	286,419
Other receivable	38,797	28,896	34,358	25,664
Total assets	460,835,813	343,223,421	404,647,643	302,261,710
Payable for investments purchased	-	-	2,180,156	1,628,522
Net assets available to participating plans	$ 460,835,813	$ 343,223,421	$ 402,467,487	$ 300,633,188

THE PENSION PLAN OF ARCH CHEMICALS

NOTES TO FINANCIAL STATEMENTS

Investment income/(loss) of the Lonza America Inc. Master Retirement Trust for the years ended December 31, 2019 and 2018, certified as complete and accurate by the Trustee is as follows:

	Year Ended December 31,	
	2019	2018
Lonza America Inc. Master Retirement Trust investment income/(loss):		
Interest	$ 1,738,176	$ 1,789,819
Dividends	12,481,977	14,052,976
Loss from pooled funds	(195,146)	(287,674)
Net realized gain/(loss)	3,730,735	(5,503,471)
Net unrealized appreciation/(depreciation)	58,542,557	(39,101,321)
Total Lonza America Inc. Master Retirement Trust investment income/(loss) available to participating plans	$ 76,298,299	$ (29,049,671)
Plan's share of investment income/(loss) in Lonza America Inc. Master Retirement Trust	$ 56,917,964	$ (21,697,368)

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.

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 PENSION PLAN OF ARCH CHEMICALS

NOTES TO FINANCIAL STATEMENTS

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, 2019 and 2018.

- *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 trusts:* 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.

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, 2019 and 2018, respectively.

Master Trust's Investments at Fair Value as of December 31, 2019

	Level 1	*Level 2*	*Level 3*	*Total*
Interest bearing cash	$ -	$ 9,075,793	$ -	$ 9,075,793
U.S. government and corporate debt securities	46,463,780	3,678,306	-	50,142,086
Mutual funds	199,880,166	-	-	199,880,166
Common stock	63,279,435	-	-	63,279,435
Total investments in the fair value hierarchy	$ 309,623,381	$ 12,754,099	$ -	322,377,480
Investments measured at net asset value (a)				138,080,514
Total master trust's investments, at fair value				$ 460,457,994

THE PENSION PLAN OF ARCH CHEMICALS

NOTES TO FINANCIAL STATEMENTS

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

(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, 2019 and 2018 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 stock, U.S. government securities, and interest bearing cash.

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 year ended December 31, 2019 and 2018, 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, 2019 and 2018.

	Fair Value		Unfunded	Redemption	Redemption
	2019	2018	Commitments	Frequency	Notice Period
State Street S&P 500 Flagship Non Lending Fund	$ 97,735,905	$ 74,356,604	None	Daily	None
Artisan FDS Inc	40,344,609	31,942,059	None	Daily	None
	$ 138,080,514	$ 106,298,663			

THE PENSION PLAN OF ARCH CHEMICALS

NOTES TO FINANCIAL STATEMENTS

Note 7 - Accumulated Plan Benefits:

Accumulated plan benefits are those future periodic payments, including lump-sum distributions, that are attributable under the Plan's provisions to the service employees have rendered. Accumulated Plan benefits include benefits expected to be pain to (a) retired or terminated employees or their beneficiaries, (b) beneficiaries of employees who have died, and (c) present employees or their beneficiaries. Except for employees hired on or After April 1, 2008, whose benefits are based on the amount accrued in their personal pension accounts, benefits under the Plan are based on employees' highest three years compensation of the last 10 years (whether or not consecutive) of credited service. The accumulated Plan benefits for active employees are based on their average compensation during the three years ending on the date as of which the benefit information is presented (the valuation date). For participants hired on or after April 1, 2008, benefits are based upon 6% of participants' eligible earnings during each quarter that the participants are employed with the Company, adjusted to accrue interest at the prevailing 10-year U.S. Treasury Note rate. Benefits payable under all circumstances, retirement, death, disability, and termination of employment, are included to the extent they are deemed attributable to employee service rendered up 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, 2018. The significant actuarial assumptions used in the valuation as of January 1, 2019 were: (a) assumed discount interest rate of 5.75%; (b) weighted average retirement age of 63; (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 - Tax Status:

The Internal Revenue Service (IRS) has determined and informed the Company by a letter dated December 5, 2017 that the Plan and related trust are designed in accordance with applicable sections of the Internal Revenue Code (IRC). The Plan has been amended since receiving the determination letter to adopt qualifying amendments. The Plan Administrator believes that the Plan is designed and is currently being operated in compliance with the applicable requirements under the IRC.

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.

Note 9 - 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, 2019

Number and average account balance distributed by attained age and attained years of credited service

Attained Age	Attained Years of Credited Service[1]										
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 &	Total
Under 25	0	0	0	0	0	0	0	0	0	0	0
25-29	0	1	0	0	0	0	0	0	0	0	1
30-34	1	18	6	0	0	0	0	0	0	0	25
35-39	1	18	17	5	0	0	0	0	0	0	41
40-44	0	20	20	7	7	1	0	0	0	0	55
45-49	1	28	35	11	25	6	0	0	0	0	106
50-54	0	33	25	13	26	14	4	0	0	0	115
55-59	1	29	29	13	18	7	11	7	1	0	116
60-64	0	24	24	16	8	6	6	20	8	0	112
65-69	0	6	2	2	2	3	0	4	3	3	25
70 & over	1	3	1	3	0	1	0	2	0	0	11
Total	5	180	159	70	86	38	21	33	12	3	607

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

Plan Name: The Pension Plan of Arch Chemicals
EIN / PN: 06-1526315 / 003
Plan Sponsor: Arch Chemicals, Inc.
Valuation Date January 1, 2019

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Statement of Actuarial Assumptions/Methods

Economic Assumptions

Interest rate basis:

Applicable month	September 2018
Interest rate basis	3-Segment Rates

Interest rates:

	Reflecting Corridors	Not Reflecting Corridors [1]
First segment rate	3.74%	2.28%
Second segment rate	5.35%	3.81%
Third segment rate	6.11%	4.46%
Effective interest rate	5.49%	3.98%

Annual rates of increase

Future Social Security wage base	2.50%
Cash balance interest crediting rate	4.00%

[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-2014 "Employees" table without collar or amount adjustments, adjusted backward to 2006 with MP-2014, and then projected forward with a static projection as specified in the regulations under §1.430(h)(3)-1 using MP-2017*)* and annuitants (based on RP-2014 "Healthy Annuitants" table without collar or amount adjustments, adjusted backward to 2006 with MP-2014, and then projected forward with a static projection as specified in the regulations under §1.430(h)(3)-1 using Scale MP-2017).

Disability

Rates varying by age and gender

Representative Disability Rates

Percentage becoming disabled during the year		
Age	Males	Females
20	0.10%	0.10%
25	0.11	0.14
30	0.12	0.17
35	0.15	0.25
40	0.22	0.34
45	0.37	0.50
50	0.68	0.78
55	1.22	1.17
60	1.82	1.48

SCHEDULE SB ATTACHMENTS

Termination

Select rates of 17.5% are used for the first three years of employment. Afterwards, "ultimate" rates varying by age.

Representative Termination Rates

Percentage leaving during the year	
Attained Age	"Ultimate" Rate
20	20.95%
25	22.21
30	14.63
35	10.54
40	8.40
45	7.45
50	6.76
55	2.92
60	2.20
65	2.82
69	3.50

Retirement

Active employees are expected to retire as shown below:

Age	Proportion Electing to retire during the year
55-61	4.00%
62	25.00%
63-66	20.00%
67	100.00%

The weighted average retirement age is 63.

Benefit Commencement Date

Retirement Benefit	Upon termination of employment.
Deferred Vested Benefit	At age 65.
Disability Benefit	Upon disablement.
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

The normal form of payment; except cash balance benefits are paid as a lump sum upon retirement, termination or disability.

SCHEDULE SB ATTACHMENTS

Percent married	80% of males and 80% of females are assumed to be married.
Spouse age	Wife three years younger than husband.
Administrative expenses	Normal cost includes a provision for administrative expenses. The amount included for plan related expenses is $1,694,000 determined by taking 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 and lump sum payments are payable on date of decrement.

Methods

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

SCHEDULE SB ATTACHMENTS

Benefits not valued

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

No assumption was made for the occurrence of unpredictable contingent event benefits. Based on discussions with Arch Chemicals Inc., such benefits are considered to have a de minimis likelihood of being paid and thus are not required to be valued, and will not be valued, until and unless the triggering event occurs.

The plan may pay 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.

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 2019 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.

SCHEDULE SB ATTACHMENTS

Assumptions Rationale - Significant Demographic Assumptions

Mortality	Assumptions used for funding purposes are as prescribed by IRC §430(h).
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. Assumed termination rates differ by age and service because of expected differences in termination rates by service.
Disability	The disability rates reflect a best estimate of future experience. Valuation results are reviewed annually with respect to gains and losses caused by disability 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. Disability rates differ by gender because of expected differences in disability rates by gender.
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.
Benefit commencement date for deferred benefits	
Deferred vested benefit	Deferred vested participants are assumed to begin benefits at age 65 (or current age if later) because the plan's experience is not considered to be credible, but it is expected that many participants will commence benefits at normal retirement.

SCHEDULE SB ATTACHMENTS

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

Arch Chemicals Inc. furnished participant data as of 1/1/2019. 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 and methods since prior valuation

The segment interest rates used to calculate the funding target were updated from an applicable month of September 2017 to September 2018.

The mortality table used to calculate the funding target and target normal cost was updated to reflect the new tables, based on RP-2014 and subsequent Society of Actuaries studies, published by the IRS in October 2017 in regulation §1.430(h)(3)-1.

The assumed plan-related expenses added to the normal cost were changed from $2,025,000 for 2018 to $1,694,000 for 2019.

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

2019

This Form is Open to Public Inspection

For calendar plan year 2019 or fiscal plan year beginning 01/01/2019 and ending 12/31/2019

▶ **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
THE PENSION PLAN OF ARCH CHEMICALS

B Three-digit plan number (PN) ▶ 003

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

D Employer Identification Number (EIN)
06-1526315

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 2019

2 Assets:

a Market value	**2a**	312,213,986
b Actuarial value	**2b**	329,565,551

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	798	243,449,558	243,449,558
b For terminated vested participants	422	25,339,155	25,339,155
c For active participants	607	56,699,499	58,068,090
d Total	1,827	325,488,212	326,856,803

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**	5.49%
6 Target normal cost	**6**	1,694,000

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

10/15/2020
Date

LIANA PETRUSO
Type or print name of actuary

2007060
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 −6.91%	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)		10,960,436
	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 5.66%		620,361
	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		11,580,797
	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	100.82%
15	Adjusted funding target attainment percentage	15	100.82%
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	102.75%
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
02/26/2020	2,250,000				
03/30/2020	2,250,000				
04/27/2020	2,250,000				
06/25/2020	2,250,000				
		Totals ► 18(b)	9,000,000	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	8,395,464

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☒ No

b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ 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

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

21 Discount rate:

	1st segment:	2nd segment:	3rd segment:	
a Segment rates:	3.74 %	5.35 %	6.11%	☐ N/A, full yield curve used

b Applicable month (enter code)	**21b**	4
22 Weighted average retirement age	**22**	63

23 Mortality table(s) (see instructions) ☐ 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**	1,694,000
b Excess assets, if applicable, but not greater than line 31a	**31b**	1,694,000

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**	8,395,464
38 Present value of excess contributions for current year (see instructions)		
a Total (excess, if any, of line 37 over line 36)	**38a**	8,395,464
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	Arch Chemicals, Inc.
EIN/PN	06-1526315 / 003
Plan Name	The Pension Plan of Arch Chemicals
Valuation Date	January 1, 2019
Enrolled Actuary	Liana Petruso
Enrollment Number	20-07060

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, 2019

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)	(2)	(3)	(4)	(5)
Assumed Retirement Ages	Probability of Retirement	Probability of Remaining Active	Proportion Active At BOY	Weighted Retirement Age
55	0.04	0.96	1.00	2.20
56	0.04	0.96	0.96	2.15
57	0.04	0.96	0.92	2.10
58	0.04	0.96	0.88	2.05
59	0.04	0.96	0.85	2.00
60	0.04	0.96	0.82	1.96
61	0.04	0.96	0.78	1.91
62	0.25	0.75	0.75	11.65
63	0.20	0.80	0.56	7.10
64	0.20	0.80	0.45	5.77
65	0.20	0.80	0.36	4.69
66	0.20	0.80	0.29	3.81
67	1.00	0.00	0.23	15.47
Average age at retirement				**62.86**
Rounded for Schedule SB item 22				**63**

Plan Name: The Pension Plan of Arch Chemicals
EIN / PN: 06-1526315 / 003
Plan Sponsor: Arch Chemicals, Inc.
Valuation Date January 1, 2019

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Statement of Actuarial Assumptions/Methods

Economic Assumptions

Interest rate basis:

Applicable month	September 2018
Interest rate basis	3-Segment Rates

Interest rates:

	Reflecting Corridors	Not Reflecting Corridors [1]
First segment rate	3.74%	2.28%
Second segment rate	5.35%	3.81%
Third segment rate	6.11%	4.46%
Effective interest rate	5.49%	3.98%

Annual rates of increase

Future Social Security wage base	2.50%
Cash balance interest crediting rate	4.00%

[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-2014 "Employees" table without collar or amount adjustments, adjusted backward to 2006 with MP-2014, and then projected forward with a static projection as specified in the regulations under §1.430(h)(3)-1 using MP-2017) and annuitants (based on RP-2014 "Healthy Annuitants" table without collar or amount adjustments, adjusted backward to 2006 with MP-2014, and then projected forward with a static projection as specified in the regulations under §1.430(h)(3)-1 using Scale MP-2017).

Disability

Rates varying by age and gender

Representative Disability Rates

Percentage becoming disabled during the year		
Age	Males	Females
20	0.10%	0.10%
25	0.11	0.14
30	0.12	0.17
35	0.15	0.25
40	0.22	0.34
45	0.37	0.50
50	0.68	0.78
55	1.22	1.17
60	1.82	1.48

SCHEDULE SB ATTACHMENTS

Termination

Select rates of 17.5% are used for the first three years of employment. Afterwards, "ultimate" rates varying by age.

Representative Termination Rates

Percentage leaving during the year	
Attained Age	"Ultimate" Rate
20	20.95%
25	22.21
30	14.63
35	10.54
40	8.40
45	7.45
50	6.76
55	2.92
60	2.20
65	2.82
69	3.50

Retirement

Active employees are expected to retire as shown below:

Age	Proportion Electing to retire during the year
55-61	4.00%
62	25.00%
63-66	20.00%
67	100.00%

The weighted average retirement age is 63.

Benefit Commencement Date

Retirement Benefit	Upon termination of employment.
Deferred Vested Benefit	At age 65.
Disability Benefit	Upon disablement.
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

The normal form of payment; except cash balance benefits are paid as a lump sum upon retirement, termination or disability.

SCHEDULE SB ATTACHMENTS

Percent married	80% of males and 80% of females are assumed to be married.
Spouse age	Wife three years younger than husband.
Administrative expenses	Normal cost includes a provision for administrative expenses. The amount included for plan related expenses is $1,694,000 determined by taking 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 and lump sum payments are payable on date of decrement.

Methods

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

SCHEDULE SB ATTACHMENTS

Benefits not valued

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The plan may pay 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.

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 2019 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.

SCHEDULE SB ATTACHMENTS

Assumptions Rationale - Significant Demographic Assumptions

Mortality	Assumptions used for funding purposes are as prescribed by IRC §430(h).
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. Assumed termination rates differ by age and service because of expected differences in termination rates by service.
Disability	The disability rates reflect a best estimate of future experience. Valuation results are reviewed annually with respect to gains and losses caused by disability 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. Disability rates differ by gender because of expected differences in disability rates by gender.
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.
Benefit commencement date for deferred benefits	
Deferred vested benefit	Deferred vested participants are assumed to begin benefits at age 65 (or current age if later) because the plan's experience is not considered to be credible, but it is expected that many participants will commence benefits at normal retirement.

SCHEDULE SB ATTACHMENTS

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

Arch Chemicals Inc. furnished participant data as of 1/1/2019. 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 and methods since prior valuation

The segment interest rates used to calculate the funding target were updated from an applicable month of September 2017 to September 2018.

The mortality table used to calculate the funding target and target normal cost was updated to reflect the new tables, based on RP-2014 and subsequent Society of Actuaries studies, published by the IRS in October 2017 in regulation §1.430(h)(3)-1.

The assumed plan-related expenses added to the normal cost were changed from $2,025,000 for 2018 to $1,694,000 for 2019.

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Summary of Plan Provisions

Plan Status: Closed to non-union participants effective November 15, 2011. The plan was amended on August 23, 2012 to freeze benefit accruals for and fully vest all non-union participants effective November 9, 2012. The last accruing group Conley union was frozen and all participants were fully vested effective May 23, 2014.

Except as noted the following definitions apply throughout:

Benefit Service	Each year with 1,000 hours worked, or 1,950 in the first and last year of service. Partial service is granted in a year by dividing actual hours worked by 1,000 (1,950 for the first and last year).
Creditable Service	Elapsed time.
Compensation	W-2 pay, including Section 125, 132(f) and 402(g) deferrals; and excluding contributions to or benefits from any deferred compensation programs or fringe benefits, cost-of-living allowances, and amounts paid under a performance unit plan or other long-term bonus plan. In the last year of employment, compensation is annualized by adding a pro-rata portion of the employee's base pay.
Average Compensation	Highest average of the Participant's Compensation for any three Plan Years out of the last ten Plan Years.
Social Security benefit	The projected amount of the participant's primary Social Security benefit according to the law in effect at the date of termination of employment, assuming earnings continue at the same base rate as immediately prior to termination, to the age at which he attains Social Security Normal Retirement Age. The benefit is reduced for commencement prior to Social Security Normal Retirement.

SCHEDULE SB ATTACHMENTS

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 (including the present value of the Lump Sum Death Benefit, if applicable), 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 Minimum Required Distribution Date as of December 1, 2013.

On November 21, 2016, Lonza Inc. and Arch Chemicals Inc. 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"). The Lump Sum Death Benefit, if applicable, was also transferred to Voya.

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 (including the present value of the Lump Sum Death Benefit, if applicable), payable as of December 1, 2017. The window does not include 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.

SCHEDULE SB ATTACHMENTS

Arch Corporate Group

Plan Provisions

Effective Date	February 8, 1999
Eligibility for participation	Completion of one year of service

Benefits Paid Upon the Following Events

Normal retirement

Eligibility	Age 65
Amount	Greater of (i) or (ii): (i) 1.5% of average compensation during highest 3 calendar years in last 10 calendar years multiplied by years of Benefit Service, less Social Security benefit multiplied by lesser of: (a) ratio of years of Benefit Service not in excess of 35 to the number 70; or (b) 50% multiplied by ratio of years of Benefit Service at retirement to years of Benefit Service projected to age 65. (ii) 1 % of average compensation during highest 3 calendar years in last 10 calendar years multiplied by years of Benefit Service. Employees hired after March 31, 2008 participate in the Cash Balance Plan.

Early retirement

Eligibility	Age 55 and 10 years of Creditable Service and retires from active status. Employees at least age 52 with 7 years of Creditable Service who are involuntarily terminated are eligible for early retirement at the later of age 55 or the date on which they would have completed 10 years of Creditable Service.
Amount	Prior to age 62: Immediate benefit equal to accrued benefit multiplied by 72% plus 1/3% multiplied by months elapsed since age 55.

Plan Name:	The Pension Plan of Arch Chemicals
EIN / PN:	06-1526315 / 003
Plan Sponsor:	Arch Chemicals, Inc.
Valuation Date	January 1, 2019

SCHEDULE SB ATTACHMENTS

	On or after age 62: Unreduced accrued benefit payable immediately.
Disability	None
Vesting benefit	
Eligibility	5 years of Creditable Service
Amount	Accrued benefit deferred to age 65. Participants with at least 10 years of service can commence an actuarially equivalent reduced benefit as early as age 55. Participants who are involuntarily terminated with at least 7 years of Creditable Service can commence an actuarially equivalent reduced benefit at age 55 (or the date on which they would have attained 10 years of service, if later).
Spouse's death benefit	
Eligibility	Vested status benefit commences no earlier than earliest retirement date that could have been elected by deceased participant.
Amount	Accrued benefit at time of death, adjusted as if participant had retired on the date that payments to spouse commence under joint and 50% survivorship option, and then died.
Lump sum death benefit	
Eligibility	Death after any type of retirement except deferred vested
Amount	$5,000 ($3,000 for old Beaumont plan)
Normal form of payment	
Single	Life annuity
Married	Reduced 50% joint and survivor annuity

SCHEDULE SB ATTACHMENTS

Optional forms of payment	Joint and survivor annuity (up to 100%)
	Guaranteed 5 or 10 year period certain and life annuity
	Specified payment and life annuity
	Social Security Level Income option
	The equivalent basis for optional forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%. 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 2-month lookback. As of January 1, 2016, a 5-month lookback is used.

SCHEDULE SB ATTACHMENTS

Brandenburg / Doe Run

Plan Provisions

Effective Date	February 8, 1999
Eligibility for participation	Immediate upon becoming an eligible collectively bargained employee. Employees first hired after 2010 shall not be eligible to participate.
Service accruals	As of February 28, 2011, participants hired after January 1, 2006, ceased to accrue Benefit Service but will continue to accrue Creditable Service.

Benefits Paid Upon the Following Events

Normal retirement

Eligibility: Age 65

Amount: For pre-1/1/2006 hires: a flat monthly rate based on year of retirement as per the table below multiplied by years of Benefit Service.

Year of Retirement	Flat Monthly Rate
Prior to 2003	$38.00
2003	$39.00
2004	$42.00
2005	$45.00
2006-2010	$52.50
2011 and later	$60.00

For post-12/31/2005 hires, the flat monthly rate per year of Benefit Service is $20.00.

SCHEDULE SB ATTACHMENTS

Early retirement

Eligibility	Age 55 and 10 years of Creditable Service and retires from active status. Employees at least age 52 with 7 years of Creditable Service who are involuntarily terminated are eligible for early retirement at the later of age 55 or the date on which they would have completed 10 years of service.
Amount	Prior to age 62: Immediate benefit equal to accrued benefit multiplied by 72% plus 1/3% multiplied by months elapsed since age 55 On or after age 62: Unreduced accrued benefit payable immediately.

Vesting benefit

Eligibility	5 years of Creditable Service
Amount	Accrued benefit deferred to age 65. Participants with at least 10 years of Creditable Service can commence an actuarially equivalent reduced benefit as early as age 55. Participants who are involuntarily terminated with at least 7 years of Creditable Service can commence an actuarially equivalent reduced benefit at age 55 (or the date on which they would have attained 10 years of service, if later).

Spouse's death benefit

Eligibility	Vested status benefit commences no earlier than earliest retirement date that could have been elected by deceased participant.
Amount	Accrued allowance at time of death, adjusted as if participant had retired on date payments to spouse commence under joint and 50% survivorship option, and then died.

SCHEDULE SB ATTACHMENTS

Lump sum death benefit

Eligibility	Death after any type of retirement except deferred vested.
Amount	$5,000

Normal form of payment

Single	Life annuity
Married	Reduced 50% joint and survivor annuity

Optional forms of payment

Joint and survivor annuity (up to 100%)

Guaranteed 5 or 10 year period certain and life annuity

Specified payment and life annuity

Social Security Level Income option

The equivalent basis for optional forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%. 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 2-month lookback. As of January 1, 2016, a 5-month lookback is used.

SCHEDULE SB ATTACHMENTS

Conley Collectively Bargained Group

Plan Provisions

Effective Date	February 17, 2003
Eligibility for participation	January 1 or July 1 after completing one year of Creditable Service and after attaining age 21

Benefits Paid Upon the Following Events

Average Final Compensation	For this group, the three years in the average are consecutive.
Normal retirement	
Eligibility	Age 65
Amount	Sum of (A) and (B) below: (A) 0.75% (0.70% for benefit commencement dates prior to April 1, 2006) of Average Final Compensation, multiplied by participant's Creditable Service not in excess of 35 years. (B) 0.50% of Average Final Compensation in excess of the participant's Social Security Covered Compensation multiplied by the participant's Creditable Service, not in excess of 35 years. Effective May 23, 2014 all benefit accruals are frozen.
Early retirement	
Eligibility	Age 55 and 10 years of Creditable Service. Effective May 23, 2014, all participants are fully vested.
Amount	Accrued benefit reduced by 5/12% per month prior to age 65

SCHEDULE SB ATTACHMENTS

Vesting benefit

Eligibility	5 years of Creditable Service
Amount	Accrued benefit deferred to age 65. Participants may elect to commence a reduced benefit as early as age 55. Such benefit is reduced 5/12% per month prior to age 65.

Spouse's death benefit

Eligibility	Vested status benefit commences no earlier than earliest retirement date that could have been elected by deceased participant.
Amount	Accrued benefit at time of death, adjusted as if participant had retired on date payments to spouse commence under joint and 50% survivorship option, and then died.

Normal form of benefit

Single	Life annuity
Married	Reduced 50% joint and survivor annuity

Optional forms of payment

Joint and survivor annuity (50%, 75% or 100%)

Guaranteed 5 or 10 year period certain and life annuity

Specified payment and life annuity

Social Security Level Income option

The equivalent basis for optional forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%, but not less than 1983 GAM mortality Table and 5.00%. 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 2-month lookback. As of January 1, 2016, a 5-month lookback is used.

SCHEDULE SB ATTACHMENTS

Hickson Corporate Group

Plan Provisions

Effective Date	October 24, 2003
Eligibility for participation	January 1 or July 1 after completing one year of service and after attaining age 21

Benefits Paid Upon the Following Events

Average Final Compensation	For purpose of the Hickson Benefit, the three years in the average are consecutive.
Normal retirement	
Age requirement	Age 65
Benefit	Greater of: (A) Hickson Benefit for pre-2003 service, plus Arch Benefit for post-2002 service, or (B) Hickson Benefit for all service Where: The Hickson Benefit is equal to: 0.7% of Average Final Compensation, plus 0.5% of Average Final Compensation in excess of Social Security Benefit, multiplied by Creditable Service not in excess of 35 years and The Arch Benefit is equal to the greater of: (i) 1.5% of Average Final Compensation multiplied by years of Benefit Service, less Social Security benefit multiplied by lesser of: (a) ratio of years of Benefit Service not in excess of 35 to the number 70; or (b) 50% multiplied by ratio of years of Benefit Service at retirement to years of Benefit Service projected to age 65; and (ii) 1% Average Final Compensation

SCHEDULE SB ATTACHMENTS

Early retirement

Eligibility	Age 55 and 10 years of Creditable Service
Amount	Accrued benefit as determined for Normal Retirement, reduced as follows: the Hickson portion of the benefit is reduced 5/12% per month prior to age 65; and the Arch portion of the benefit is multiplied by 72%, plus 1/3% for each month elapsed since the participant's age 55.

Vesting benefit

Eligibility	5 years of Creditable Service
Amount	Accrued benefit deferred to age 65. A participant who has at least 10 years of service may elect to commence a reduced benefit as early as age 55. Such benefit is reduced as follows: the Hickson portion of the benefit is reduced 5/12% per month prior to age 65; and the Arch portion of the benefit is the actuarial equivalent of the Arch portion of the normal retirement benefit.

Spouse's death benefit

Eligibility	Vested status benefit commences no earlier than earliest retirement date that could have been elected by deceased participant.
Amount	Accrued allowance at time of death, adjusted as if participant had retired on date payments to spouse commence under joint and 50% survivorship option, and then died.

Lump sum death benefit

Eligibility	Death after any type of retirement except deferred vested.
Amount	$5,000

SCHEDULE SB ATTACHMENTS

Normal form of payment

Single	Life annuity
Married	Reduced 50% joint and survivor annuity

Optional forms of payment

Joint and survivor annuity (25%, 50%, 75% or 100%)

Guaranteed 5 or 10 year period certain and life annuity. Guaranteed period shall not exceed the participant's life expectancy at date payments commence.

Specified payment and life annuity

Social Security Level Income option

The equivalent basis for optional forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%, but not less than 1983 GAM mortality Table and 5.00%. 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 2-month lookback. As of January 1, 2016, a 5-month lookback is used.

SCHEDULE SB ATTACHMENTS

Avecia

Plan Provisions

Effective Date	Adopted April 3, 2004
Eligibility for participation	January 1 or July 1 following completion of one year service

Benefits Paid Upon the Following Events

Average Final Compensation

For purpose of the Avecia Benefit, the three years in the average are consecutive.

Normal retirement

Age requirement: Age 65

Amount: Greater of:

(A) Avecia Benefit for pre-2005 service, plus Arch Benefit for post-2004 service, or

(B) Arch Benefit for all service

Where:

The Avecia Benefit is determined under the applicable schedule as described below:

Benefit Schedule A: The greater of:

(i) 1.2% of Average Final Compensation times Years of Service

(ii) 1.6% times Years of Service, but not more than 50%, times Average Compensation minus 1.6% times Years of Service, but not more than 50%, times Social Security Benefit.

Benefit Schedule B: The sum of (i) and (ii):

(i) The benefit determined under Benefit Schedule A based on Average Compensation and Years of Service as of April 30, 1998.

(ii) The accumulation for each plan year of the sum of 1.2% of Compensation up to the Breakpoint plus 1.6% of Compensation in excess of the Breakpoint.

SCHEDULE SB ATTACHMENTS

	Breakpoint: $58,800 for 2004, $58,200 for 2003, $56,800 for 2002, and $53,800 for 2001 as adjusted for inflation as the Social Security Wage Base. and The Arch Benefit is equal to the greater of: (i) 1.5% of average compensation during highest 3 calendar years in last 10 calendar years multiplied by years of service, less Social Security benefit multiplied by lesser of: (a) ratio of years of service not in excess of 35 to the number 70; or (b) 50% multiplied by ratio of years of service at retirement to years of service projected to age 65; and (ii) 1% of three-year final average compensation
Early retirement	
Eligibility	For Avecia Benefit: Age 50 and age plus years of service equals 70 or more. For Arch Benefit, age 55 and 10 years of service
Benefit for service before January 1, 2005	Benefit Schedule A: Immediate benefit equal to accrued benefit reduced by approximately 4.2% for each year before the date full benefits are available. Full benefits are available at age 62, or as early as age 55 if age plus service totals at least 80. Benefit Schedule B: Immediate benefit equal to accrued benefit reduced by approximately 6.0% for each year before the date full benefits are available. Full benefits are available at age 62, or as early as age 58 if age plus service totals at least 80.
Benefit for service on or after January 1, 2005	Immediate benefit equal to accrued benefit multiplied by 72% plus 1/3% multiplied by months elapsed since age 55.
Vesting benefit	
Eligibility	5 years of service

SCHEDULE SB ATTACHMENTS

Amount

Accrued benefit deferred to age 65. The Avecia Benefit can commence as early as age 50 if the sum of age and service is at least 70, in which case that benefit is reduced as follows:

Age	Factor
50	.209
51	.229
52	.251
53	.276
54	.305
55	.337
56	.372
57	.412
58	.457
59	.508
60	.565
61	.630
62	.705
63	.789
64	.887

The actuarially reduced Arch Benefit can commence at the same time.

Spouse's death benefit

Eligibility

Vested status benefit commences no earlier than earliest retirement date that could have been elected by deceased participant.

Amount

Accrued benefit at time of death, adjusted as if participant had retired on date payments to spouse commence under joint and 50% survivorship option, and then died.

Lump sum death benefit

Eligibility

Death after termination after satisfying 55 and 10 years of service.

Amount

$5,000

Normal form of payment

SCHEDULE SB ATTACHMENTS

Single	Life annuity
Married	Reduced 50% joint and survivor annuity
Optional forms of payment	Joint and survivor annuity (up to 100%)
	Guaranteed 5 or 10 period certain and life annuity. Avecia Benefit only: 15, 20, or 25 year period certain and life annuity, in which case the Arch Benefit is a 10 year certain and life. Guaranteed period shall not exceed the participant's life expectancy at date payments commence.
	Specified payment and life annuity.
	Social Security Level Income option.
	The equivalent basis for optional forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%. Grandfather basis of 1979 George B. Buck Mortality Table for Males and 5.00% applies to the 12/31/2008 benefit. 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 2-month lookback. As of January 1, 2016, a 5-month lookback is used.

SCHEDULE SB ATTACHMENTS

Cash Balance Plan

Plan Provisions

Effective Date	April 1, 2008
Eligibility for participation	Immediate upon becoming an eligible non-collectively bargained employee.

Benefits Paid Upon the Following Events

Normal retirement

Age requirement	Age 65
Amount	Balance in Personal Pension Account which grows quarterly with Pay-Based Credits and Interest Credits. Pay-Based Credits equal 6% of compensation for the quarter. The Interest Crediting rate is the annual rate of interest on 10-year Treasuries for the month of November of the prior plan year.

Early retirement

Eligibility	Age 55
Amount	Balance in Personal Pension Account.

Disability retirement

Eligibility	3 years of Benefit Service
Amount	Balance in Personal Pension Account as of early or normal retirement date. Personal Pension Account would continue to grow with Pay-Based Credits and Interest Credits. The Pay-Based Credits would be based on Base Monthly Pay at time of disability.

SCHEDULE SB ATTACHMENTS

Vesting benefit	
Eligibility	3 years of Creditable Service. Prior to January 1, 2016, can commence after one-year break in service. Effective January 1, 2016 the one-year break requirement was eliminated.
Amount	Balance in Personal Pension Account.
Death benefit	
Eligibility	3 years of Creditable Service
Amount	Balance in Personal Pension Account.
Normal form of allowance	
Single	Life annuity
Married	Reduced 50% joint and survivor annuity
Optional forms of allowance	Lump sum Joint and survivor annuity – 50%, 75% and 100% For conversion of the cash balance to the single life annuity, the IRS-prescribed Applicable Mortality table, and the 417(e) Applicable Interest Rates with an annual stability period and a 2-month lookback. As of January 1, 2016, a 5-month lookback is used. The equivalent basis for conversion to other optional annuity forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%.

SCHEDULE SB ATTACHMENTS

Schedule SB, Line 26

Schedule of Active Participant Data as of January 1, 2019

Numberof participants distributed by attained age and attained years of credited service

Attained Age	Attained Years of Credited Service[1]										
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 &	Total
Under 25	0	0	0	0	0	0	0	0	0	0	0
25-29	0	1	0	0	0	0	0	0	0	0	1
30-34	1	18	6	0	0	0	0	0	0	0	25
35-39	1	18	17	5	0	0	0	0	0	0	41
40-44	0	20	20	7	7	1	0	0	0	0	55
45-49	1	28	35	11	25	6	0	0	0	0	106
50-54	0	33	25	13	26	14	4	0	0	0	115
55-59	1	29	29	13	18	7	11	7	1	0	116
60-64	0	24	24	16	8	6	6	20	8	0	112
65-69	0	6	2	2	2	3	0	4	3	3	25
70 & over	1	3	1	3	0	1	0	2	0	0	11
Total	5	180	159	70	86	38	21	33	12	3	607

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

Plan Name: The Pension Plan of Arch Chemicals
EIN / PN: 06-1526315 / 003
Plan Sponsor: Arch Chemicals, Inc.
Valuation Date January 1, 2019

SCHEDULE SB ATTACHMENTS

Schedule SB – Statement by Enrolled Actuary

Plan Sponsor	Arch Chemicals, Inc.
EIN/PN	06-1526315 / 003
Plan Name	The Pension Plan of Arch Chemicals
Valuation Date	January 1, 2019
Enrolled Actuary	Liana Petruso
Enrollment Number	20-07060

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, 2019

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)	(2)	(3)	(4)	(5)
Assumed Retirement Ages	Probability of Retirement	Probability of Remaining Active	Proportion Active At BOY	Weighted Retirement Age
55	0.04	0.96	1.00	2.20
56	0.04	0.96	0.96	2.15
57	0.04	0.96	0.92	2.10
58	0.04	0.96	0.88	2.05
59	0.04	0.96	0.85	2.00
60	0.04	0.96	0.82	1.96
61	0.04	0.96	0.78	1.91
62	0.25	0.75	0.75	11.65
63	0.20	0.80	0.56	7.10
64	0.20	0.80	0.45	5.77
65	0.20	0.80	0.36	4.69
66	0.20	0.80	0.29	3.81
67	1.00	0.00	0.23	15.47
Average age at retirement				**62.86**
Rounded for Schedule SB item 22				**63**

Plan Name: The Pension Plan of Arch Chemicals
EIN / PN: 06-1526315 / 003
Plan Sponsor: Arch Chemicals, Inc.
Valuation Date January 1, 2019

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Summary of Plan Provisions

Plan Status: Closed to non-union participants effective November 15, 2011. The plan was amended on August 23, 2012 to freeze benefit accruals for and fully vest all non-union participants effective November 9, 2012. The last accruing group Conley union was frozen and all participants were fully vested effective May 23, 2014.

Except as noted the following definitions apply throughout:

Benefit Service	Each year with 1,000 hours worked, or 1,950 in the first and last year of service. Partial service is granted in a year by dividing actual hours worked by 1,000 (1,950 for the first and last year).
Creditable Service	Elapsed time.
Compensation	W-2 pay, including Section 125, 132(f) and 402(g) deferrals; and excluding contributions to or benefits from any deferred compensation programs or fringe benefits, cost-of-living allowances, and amounts paid under a performance unit plan or other long-term bonus plan. In the last year of employment, compensation is annualized by adding a pro-rata portion of the employee's base pay.
Average Compensation	Highest average of the Participant's Compensation for any three Plan Years out of the last ten Plan Years.
Social Security benefit	The projected amount of the participant's primary Social Security benefit according to the law in effect at the date of termination of employment, assuming earnings continue at the same base rate as immediately prior to termination, to the age at which he attains Social Security Normal Retirement Age. The benefit is reduced for commencement prior to Social Security Normal Retirement.

SCHEDULE SB ATTACHMENTS

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 (including the present value of the Lump Sum Death Benefit, if applicable), 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 Minimum Required Distribution Date as of December 1, 2013.

On November 21, 2016, Lonza Inc. and Arch Chemicals Inc. 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"). The Lump Sum Death Benefit, if applicable, was also transferred to Voya.

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 (including the present value of the Lump Sum Death Benefit, if applicable), payable as of December 1, 2017. The window does not include 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.

SCHEDULE SB ATTACHMENTS

Arch Corporate Group

Plan Provisions

Effective Date	February 8, 1999
Eligibility for participation	Completion of one year of service

Benefits Paid Upon the Following Events

Normal retirement

Eligibility	Age 65
Amount	Greater of (i) or (ii): (i) 1.5% of average compensation during highest 3 calendar years in last 10 calendar years multiplied by years of Benefit Service, less Social Security benefit multiplied by lesser of: (a) ratio of years of Benefit Service not in excess of 35 to the number 70; or (b) 50% multiplied by ratio of years of Benefit Service at retirement to years of Benefit Service projected to age 65. (ii) 1 % of average compensation during highest 3 calendar years in last 10 calendar years multiplied by years of Benefit Service. Employees hired after March 31, 2008 participate in the Cash Balance Plan.

Early retirement

Eligibility	Age 55 and 10 years of Creditable Service and retires from active status. Employees at least age 52 with 7 years of Creditable Service who are involuntarily terminated are eligible for early retirement at the later of age 55 or the date on which they would have completed 10 years of Creditable Service.
Amount	Prior to age 62: Immediate benefit equal to accrued benefit multiplied by 72% plus 1/3% multiplied by months elapsed since age 55.

Plan Name:	The Pension Plan of Arch Chemicals
EIN / PN:	06-1526315 / 003
Plan Sponsor:	Arch Chemicals, Inc.
Valuation Date	January 1, 2019

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	On or after age 62: Unreduced accrued benefit payable immediately.
Disability	None
Vesting benefit	
Eligibility	5 years of Creditable Service
Amount	Accrued benefit deferred to age 65. Participants with at least 10 years of service can commence an actuarially equivalent reduced benefit as early as age 55. Participants who are involuntarily terminated with at least 7 years of Creditable Service can commence an actuarially equivalent reduced benefit at age 55 (or the date on which they would have attained 10 years of service, if later).
Spouse's death benefit	
Eligibility	Vested status benefit commences no earlier than earliest retirement date that could have been elected by deceased participant.
Amount	Accrued benefit at time of death, adjusted as if participant had retired on the date that payments to spouse commence under joint and 50% survivorship option, and then died.
Lump sum death benefit	
Eligibility	Death after any type of retirement except deferred vested
Amount	$5,000 ($3,000 for old Beaumont plan)
Normal form of payment	
Single	Life annuity
Married	Reduced 50% joint and survivor annuity

SCHEDULE SB ATTACHMENTS

Optional forms of payment

Joint and survivor annuity (up to 100%)

Guaranteed 5 or 10 year period certain and life annuity

Specified payment and life annuity

Social Security Level Income option

The equivalent basis for optional forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%. 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 2-month lookback. As of January 1, 2016, a 5-month lookback is used.

SCHEDULE SB ATTACHMENTS

Brandenburg / Doe Run

Plan Provisions

Effective Date	February 8, 1999
Eligibility for participation	Immediate upon becoming an eligible collectively bargained employee. Employees first hired after 2010 shall not be eligible to participate.
Service accruals	As of February 28, 2011, participants hired after January 1, 2006, ceased to accrue Benefit Service but will continue to accrue Creditable Service.

Benefits Paid Upon the Following Events

Normal retirement

Eligibility: Age 65

Amount: For pre-1/1/2006 hires: a flat monthly rate based on year of retirement as per the table below multiplied by years of Benefit Service.

Year of Retirement	Flat Monthly Rate
Prior to 2003	$38.00
2003	$39.00
2004	$42.00
2005	$45.00
2006-2010	$52.50
2011 and later	$60.00

For post-12/31/2005 hires, the flat monthly rate per year of Benefit Service is $20.00.

SCHEDULE SB ATTACHMENTS

Early retirement

Eligibility	Age 55 and 10 years of Creditable Service and retires from active status. Employees at least age 52 with 7 years of Creditable Service who are involuntarily terminated are eligible for early retirement at the later of age 55 or the date on which they would have completed 10 years of service.
Amount	Prior to age 62: Immediate benefit equal to accrued benefit multiplied by 72% plus 1/3% multiplied by months elapsed since age 55 On or after age 62: Unreduced accrued benefit payable immediately.

Vesting benefit

Eligibility	5 years of Creditable Service
Amount	Accrued benefit deferred to age 65. Participants with at least 10 years of Creditable Service can commence an actuarially equivalent reduced benefit as early as age 55. Participants who are involuntarily terminated with at least 7 years of Creditable Service can commence an actuarially equivalent reduced benefit at age 55 (or the date on which they would have attained 10 years of service, if later).

Spouse's death benefit

Eligibility	Vested status benefit commences no earlier than earliest retirement date that could have been elected by deceased participant.
Amount	Accrued allowance at time of death, adjusted as if participant had retired on date payments to spouse commence under joint and 50% survivorship option, and then died.

SCHEDULE SB ATTACHMENTS

Lump sum death benefit

Eligibility	Death after any type of retirement except deferred vested.
Amount	$5,000

Normal form of payment

Single	Life annuity
Married	Reduced 50% joint and survivor annuity

Optional forms of payment

Joint and survivor annuity (up to 100%)

Guaranteed 5 or 10 year period certain and life annuity

Specified payment and life annuity

Social Security Level Income option

The equivalent basis for optional forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%. 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 2-month lookback. As of January 1, 2016, a 5-month lookback is used.

SCHEDULE SB ATTACHMENTS

Conley Collectively Bargained Group

Plan Provisions

Effective Date	February 17, 2003
Eligibility for participation	January 1 or July 1 after completing one year of Creditable Service and after attaining age 21

Benefits Paid Upon the Following Events

Average Final Compensation	For this group, the three years in the average are consecutive.
Normal retirement	
Eligibility	Age 65
Amount	Sum of (A) and (B) below: (A) 0.75% (0.70% for benefit commencement dates prior to April 1, 2006) of Average Final Compensation, multiplied by participant's Creditable Service not in excess of 35 years. (B) 0.50% of Average Final Compensation in excess of the participant's Social Security Covered Compensation multiplied by the participant's Creditable Service, not in excess of 35 years. Effective May 23, 2014 all benefit accruals are frozen.
Early retirement	
Eligibility	Age 55 and 10 years of Creditable Service. Effective May 23, 2014, all participants are fully vested.
Amount	Accrued benefit reduced by 5/12% per month prior to age 65

SCHEDULE SB ATTACHMENTS

Vesting benefit

Eligibility	5 years of Creditable Service
Amount	Accrued benefit deferred to age 65. Participants may elect to commence a reduced benefit as early as age 55. Such benefit is reduced 5/12% per month prior to age 65.

Spouse's death benefit

Eligibility	Vested status benefit commences no earlier than earliest retirement date that could have been elected by deceased participant.
Amount	Accrued benefit at time of death, adjusted as if participant had retired on date payments to spouse commence under joint and 50% survivorship option, and then died.

Normal form of benefit

Single	Life annuity
Married	Reduced 50% joint and survivor annuity

Optional forms of payment	Joint and survivor annuity (50%, 75% or 100%) Guaranteed 5 or 10 year period certain and life annuity Specified payment and life annuity Social Security Level Income option The equivalent basis for optional forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%, but not less than 1983 GAM mortality Table and 5.00%. 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 2-month lookback. As of January 1, 2016, a 5-month lookback is used.

SCHEDULE SB ATTACHMENTS

Hickson Corporate Group

Plan Provisions

Effective Date	October 24, 2003
Eligibility for participation	January 1 or July 1 after completing one year of service and after attaining age 21

Benefits Paid Upon the Following Events

Average Final Compensation	For purpose of the Hickson Benefit, the three years in the average are consecutive.
Normal retirement	
Age requirement	Age 65
Benefit	Greater of: (A) Hickson Benefit for pre-2003 service, plus Arch Benefit for post-2002 service, or (B) Hickson Benefit for all service Where: The Hickson Benefit is equal to: 0.7% of Average Final Compensation, plus 0.5% of Average Final Compensation in excess of Social Security Benefit, multiplied by Creditable Service not in excess of 35 years and The Arch Benefit is equal to the greater of: (i) 1.5% of Average Final Compensation multiplied by years of Benefit Service, less Social Security benefit multiplied by lesser of: (a) ratio of years of Benefit Service not in excess of 35 to the number 70; or (b) 50% multiplied by ratio of years of Benefit Service at retirement to years of Benefit Service projected to age 65; and (ii) 1% Average Final Compensation

SCHEDULE SB ATTACHMENTS

Early retirement

Eligibility	Age 55 and 10 years of Creditable Service
Amount	Accrued benefit as determined for Normal Retirement, reduced as follows: the Hickson portion of the benefit is reduced 5/12% per month prior to age 65; and the Arch portion of the benefit is multiplied by 72%, plus 1/3% for each month elapsed since the participant's age 55.

Vesting benefit

Eligibility	5 years of Creditable Service
Amount	Accrued benefit deferred to age 65. A participant who has at least 10 years of service may elect to commence a reduced benefit as early as age 55. Such benefit is reduced as follows: the Hickson portion of the benefit is reduced 5/12% per month prior to age 65; and the Arch portion of the benefit is the actuarial equivalent of the Arch portion of the normal retirement benefit.

Spouse's death benefit

Eligibility	Vested status benefit commences no earlier than earliest retirement date that could have been elected by deceased participant.
Amount	Accrued allowance at time of death, adjusted as if participant had retired on date payments to spouse commence under joint and 50% survivorship option, and then died.

Lump sum death benefit

Eligibility	Death after any type of retirement except deferred vested.
Amount	$5,000

SCHEDULE SB ATTACHMENTS

Normal form of payment

Single	Life annuity
Married	Reduced 50% joint and survivor annuity

Optional forms of payment

Joint and survivor annuity (25%, 50%, 75% or 100%)

Guaranteed 5 or 10 year period certain and life annuity. Guaranteed period shall not exceed the participant's life expectancy at date payments commence.

Specified payment and life annuity

Social Security Level Income option

The equivalent basis for optional forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%, but not less than 1983 GAM mortality Table and 5.00%. 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 2-month lookback. As of January 1, 2016, a 5-month lookback is used.

SCHEDULE SB ATTACHMENTS

Avecia

Plan Provisions

Effective Date	Adopted April 3, 2004
Eligibility for participation	January 1 or July 1 following completion of one year service

Benefits Paid Upon the Following Events

Average Final Compensation

For purpose of the Avecia Benefit, the three years in the average are consecutive.

Normal retirement

Age requirement: Age 65

Amount: Greater of:

(A) Avecia Benefit for pre-2005 service, plus Arch Benefit for post-2004 service, or

(B) Arch Benefit for all service

Where:

The Avecia Benefit is determined under the applicable schedule as described below:

Benefit Schedule A: The greater of:

(i) 1.2% of Average Final Compensation times Years of Service

(ii) 1.6% times Years of Service, but not more than 50%, times Average Compensation minus 1.6% times Years of Service, but not more than 50%, times Social Security Benefit.

Benefit Schedule B: The sum of (i) and (ii):

(i) The benefit determined under Benefit Schedule A based on Average Compensation and Years of Service as of April 30, 1998.

(ii) The accumulation for each plan year of the sum of 1.2% of Compensation up to the Breakpoint plus 1.6% of Compensation in excess of the Breakpoint.

SCHEDULE SB ATTACHMENTS

	Breakpoint: $58,800 for 2004, $58,200 for 2003, $56,800 for 2002, and $53,800 for 2001 as adjusted for inflation as the Social Security Wage Base. and The Arch Benefit is equal to the greater of: (i) 1.5% of average compensation during highest 3 calendar years in last 10 calendar years multiplied by years of service, less Social Security benefit multiplied by lesser of: (a) ratio of years of service not in excess of 35 to the number 70; or (b) 50% multiplied by ratio of years of service at retirement to years of service projected to age 65; and (ii) 1% of three-year final average compensation
Early retirement	
Eligibility	For Avecia Benefit: Age 50 and age plus years of service equals 70 or more. For Arch Benefit, age 55 and 10 years of service
Benefit for service before January 1, 2005	Benefit Schedule A: Immediate benefit equal to accrued benefit reduced by approximately 4.2% for each year before the date full benefits are available. Full benefits are available at age 62, or as early as age 55 if age plus service totals at least 80. Benefit Schedule B: Immediate benefit equal to accrued benefit reduced by approximately 6.0% for each year before the date full benefits are available. Full benefits are available at age 62, or as early as age 58 if age plus service totals at least 80.
Benefit for service on or after January 1, 2005	Immediate benefit equal to accrued benefit multiplied by 72% plus 1/3% multiplied by months elapsed since age 55.
Vesting benefit	
Eligibility	5 years of service

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Amount

Accrued benefit deferred to age 65. The Avecia Benefit can commence as early as age 50 if the sum of age and service is at least 70, in which case that benefit is reduced as follows:

Age	Factor
50	.209
51	.229
52	.251
53	.276
54	.305
55	.337
56	.372
57	.412
58	.457
59	.508
60	.565
61	.630
62	.705
63	.789
64	.887

The actuarially reduced Arch Benefit can commence at the same time.

Spouse's death benefit

Eligibility

Vested status benefit commences no earlier than earliest retirement date that could have been elected by deceased participant.

Amount

Accrued benefit at time of death, adjusted as if participant had retired on date payments to spouse commence under joint and 50% survivorship option, and then died.

Lump sum death benefit

Eligibility

Death after termination after satisfying 55 and 10 years of service.

Amount

$5,000

Normal form of payment

SCHEDULE SB ATTACHMENTS

Single	Life annuity
Married	Reduced 50% joint and survivor annuity
Optional forms of payment	Joint and survivor annuity (up to 100%)
	Guaranteed 5 or 10 period certain and life annuity. Avecia Benefit only: 15, 20, or 25 year period certain and life annuity, in which case the Arch Benefit is a 10 year certain and life. Guaranteed period shall not exceed the participant's life expectancy at date payments commence.
	Specified payment and life annuity.
	Social Security Level Income option.
	The equivalent basis for optional forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%. Grandfather basis of 1979 George B. Buck Mortality Table for Males and 5.00% applies to the 12/31/2008 benefit. 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 2-month lookback. As of January 1, 2016, a 5-month lookback is used.

SCHEDULE SB ATTACHMENTS

Cash Balance Plan

Plan Provisions

Effective Date	April 1, 2008
Eligibility for participation	Immediate upon becoming an eligible non-collectively bargained employee.

Benefits Paid Upon the Following Events

Normal retirement

Age requirement	Age 65
Amount	Balance in Personal Pension Account which grows quarterly with Pay-Based Credits and Interest Credits. Pay-Based Credits equal 6% of compensation for the quarter. The Interest Crediting rate is the annual rate of interest on 10-year Treasuries for the month of November of the prior plan year.

Early retirement

Eligibility	Age 55
Amount	Balance in Personal Pension Account.

Disability retirement

Eligibility	3 years of Benefit Service
Amount	Balance in Personal Pension Account as of early or normal retirement date. Personal Pension Account would continue to grow with Pay-Based Credits and Interest Credits. The Pay-Based Credits would be based on Base Monthly Pay at time of disability.

SCHEDULE SB ATTACHMENTS

Vesting benefit

Eligibility	3 years of Creditable Service. Prior to January 1, 2016, can commence after one-year break in service. Effective January 1, 2016 the one-year break requirement was eliminated.
Amount	Balance in Personal Pension Account.

Death benefit

Eligibility	3 years of Creditable Service
Amount	Balance in Personal Pension Account.

Normal form of allowance

Single	Life annuity
Married	Reduced 50% joint and survivor annuity

Optional forms of allowance

Lump sum

Joint and survivor annuity – 50%, 75% and 100%

For conversion of the cash balance to the single life annuity, the IRS-prescribed Applicable Mortality table, and the 417(e) Applicable Interest Rates with an annual stability period and a 2-month lookback. As of January 1, 2016, a 5-month lookback is used. The equivalent basis for conversion to other optional annuity forms of payment is the 2008 PPA Lump Sum Mortality Table, and 8.50%.