Form 5500	Annual Return/Report of Employee Benefit Plan	OMB Nos. 1210-0110 1210-0089
Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	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.**	**2017** **This Form is Open to Public Inspection**

Part I Annual Report Identification Information

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

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. . . . . ▶ [ ]

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
ALERIS 401(K) PLAN

1b Three-digit plan number (PN) ▶ 001

1c Effective date of plan 01/01/1971

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)
ALERIS OHIO MANAGEMENT, INC

25825 SCIENCE PARK DRIVE
STE 400
BEACHWOOD, OH 44122-7392

2b Employer Identification Number (EIN) 27-1539961

2c Plan Sponsor's telephone number 216-910-3400

2d Business code (see instructions) 331310

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.	10/12/2018	MELISSA OLMSTEAD
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE	Filed with authorized/valid electronic signature.	10/12/2018	MELISSA OLMSTEAD
	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**	1493
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)**	938
a(2)	Total number of active participants at the end of the plan year	**6a(2)**	931
b	Retired or separated participants receiving benefits	**6b**	2
c	Other retired or separated participants entitled to future benefits	**6c**	320
d	Subtotal. Add lines **6a(2)**, **6b**, and **6c**	**6d**	1253
e	Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	**6e**	4
f	Total. Add lines **6d** and **6e**.	**6f**	1257
g	Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**6g**	1183
h	Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	**6h**	61
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:

2E 2F 2G 2J 2K 2T 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)

- **(1)** [X] Insurance
- **(2)** [ ] Code section 412(e)(3) insurance contracts
- **(3)** [X] Trust
- **(4)** [ ] General assets of the sponsor

9b Plan benefit arrangement (check all that apply)

- **(1)** [X] Insurance
- **(2)** [ ] Code section 412(e)(3) insurance contracts
- **(3)** [X] Trust
- **(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)** [ ] **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)** [X] 2 **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 2017 Form M-1 annual report. If the plan was not required to file the 2017 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 A (Form 5500)	Insurance 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.** ▶ Insurance companies are required to provide the information pursuant to ERISA section 103(a)(2).	**2017** **This Form is Open to Public Inspection**

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

A Name of plan	**B** Three-digit plan number (PN) ▶
ALERIS 401(K) PLAN	001
C Plan sponsor's name as shown on line 2a of Form 5500	**D** Employer Identification Number (EIN)
ALERIS OHIO MANAGEMENT, INC	27-1539961

Part I **Information Concerning Insurance Contract Coverage, Fees, and Commissions** Provide information for each contract on a separate Schedule A. Individual contracts grouped as a unit in Parts II and III can be reported on a single Schedule A.

1 Coverage Information:

(a) Name of insurance carrier

PRINCIPAL LIFE INSURANCE COMPANY

(b) EIN	**(c)** NAIC code	**(d)** Contract or identification number	**(e)** Approximate number of persons covered at end of policy or contract year	Policy or contract year **(f)** From	**(g)** To
42-0127290	61271	803664	1257	01/01/2017	12/31/2017

2 Insurance fee and commission information. Enter the total fees and total commissions paid. List in line 3 the agents, brokers, and other persons in descending order of the amount paid.

(a) Total amount of commissions paid	**(b)** Total amount of fees paid
0	0

3 Persons receiving commissions and fees. (Complete as many entries as needed to report all persons).

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid **(c)** Amount	**(d)** Purpose	**(e)** Organization code

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid **(c)** Amount	**(d)** Purpose	**(e)** Organization code

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

Part II Investment and Annuity Contract Information

Where individual contracts are provided, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

4	Current value of plan's interest under this contract in the general account at year end	4	0
5	Current value of plan's interest under this contract in separate accounts at year end	5	0

6 Contracts With Allocated Funds:

a State the basis of premium rates ▶

b	Premiums paid to carrier	6b	
c	Premiums due but unpaid at the end of the year	6c	
d	If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, enter amount.	6d	

Specify nature of costs ▶

e Type of contract: (1) ☐ individual policies (2) ☐ group deferred annuity

(3) ☐ other (specify) ▶

f If contract purchased, in whole or in part, to distribute benefits from a terminating plan, check here ▶ ☐

7 Contracts With Unallocated Funds (Do not include portions of these contracts maintained in separate accounts)

a Type of contract: (1) ☐ deposit administration (2) ☐ immediate participation guarantee

(3) ☐ guaranteed investment (4) ☒ other ▶ GUARANTEED FUND CONTRACT

b	Balance at the end of the previous year		7b	16095187
c	Additions: (1) Contributions deposited during the year	7c(1)	592530	
	(2) Dividends and credits	7c(2)		
	(3) Interest credited during the year	7c(3)	219146	
	(4) Transferred from separate account	7c(4)	6454285	
	(5) Other (specify below)	7c(5)	150289	
	▶ LOAN PAYMENT, ROLLOVER, CORRECTION			
	(6)Total additions		7c(6)	7416250
d	Total of balance and additions (add lines **7b** and **7c(6)**).		7d	23511437
e	Deductions:			
	(1) Disbursed from fund to pay benefits or purchase annuities during year	7e(1)	1726254	
	(2) Administration charge made by carrier	7e(2)	27151	
	(3) Transferred to separate account	7e(3)	6290740	
	(4) Other (specify below)	7e(4)	86282	
	▶ LOAN WITHDRAWAL, 401(K) EXCESS DEFERRAL			
	(5) Total deductions		7e(5)	8130427
f	Balance at the end of the current year (subtract line **7e(5)** from line **7d**)		7f	15381010

Part III Welfare Benefit Contract Information

If more than one contract covers the same group of employees of the same employer(s) or members of the same employee organizations(s), the information may be combined for reporting purposes if such contracts are experience-rated as a unit. Where contracts cover individual employees, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

8 Benefit and contract type (check all applicable boxes)

- **a** ☐ Health (other than dental or vision)
- **b** ☐ Dental
- **c** ☐ Vision
- **d** ☐ Life insurance
- **e** ☐ Temporary disability (accident and sickness)
- **f** ☐ Long-term disability
- **g** ☐ Supplemental unemployment
- **h** ☐ Prescription drug
- **i** ☐ Stop loss (large deductible)
- **j** ☐ HMO contract
- **k** ☐ PPO contract
- **l** ☐ Indemnity contract
- **m** ☐ Other (specify) ▶

9 Experience-rated contracts:				
a Premiums: (1) Amount received	9a(1)			
(2) Increase (decrease) in amount due but unpaid	9a(2)			
(3) Increase (decrease) in unearned premium reserve	9a(3)			
(4) Earned (**(1)** + **(2)** - **(3)**)			9a(4)	
b Benefit charges (1) Claims paid	9b(1)			
(2) Increase (decrease) in claim reserves	9b(2)			
(3) Incurred claims (add **(1)** and **(2)**)			9b(3)	
(4) Claims charged			9b(4)	
c Remainder of premium: (1) Retention charges (on an accrual basis) --				
(A) Commissions	9c(1)(A)			
(B) Administrative service or other fees	9c(1)(B)			
(C) Other specific acquisition costs	9c(1)(C)			
(D) Other expenses	9c(1)(D)			
(E) Taxes	9c(1)(E)			
(F) Charges for risks or other contingencies	9c(1)(F)			
(G) Other retention charges	9c(1)(G)			
(H) Total retention			9c(1)(H)	
(2) Dividends or retroactive rate refunds. (These amounts were ☐ paid in cash, or ☐ credited.)			9c(2)	
d Status of policyholder reserves at end of year: (1) Amount held to provide benefits after retirement			9d(1)	
(2) Claim reserves			9d(2)	
(3) Other reserves			9d(3)	
e Dividends or retroactive rate refunds due. (Do not include amount entered in line **9c(2)**.)			9e	
10 Nonexperience-rated contracts:				
a Total premiums or subscription charges paid to carrier			10a	
b If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, other than reported in Part I, line 2 above, report amount.			10b	

Specify nature of costs.

Part IV Provision of Information

11 Did the insurance company fail to provide any information necessary to complete Schedule A? ☐ Yes ☒ No

12 If the answer to line 11 is "Yes," specify the information not provided. ▶

SCHEDULE A (Form 5500)	Insurance 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.** ▶ Insurance companies are required to provide the information pursuant to ERISA section 103(a)(2).	**2017** **This Form is Open to Public Inspection**

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

A Name of plan	**B** Three-digit plan number (PN) ▶
ALERIS 401(K) PLAN	001
C Plan sponsor's name as shown on line 2a of Form 5500	**D** Employer Identification Number (EIN)
ALERIS OHIO MANAGEMENT, INC	27-1539961

Part I **Information Concerning Insurance Contract Coverage, Fees, and Commissions** Provide information for each contract on a separate Schedule A. Individual contracts grouped as a unit in Parts II and III can be reported on a single Schedule A.

1 Coverage Information:

(a) Name of insurance carrier

PRINCIPAL LIFE INSURANCE COMPANY

(b) EIN	**(c)** NAIC code	**(d)** Contract or identification number	**(e)** Approximate number of persons covered at end of policy or contract year	Policy or contract year **(f)** From	**(g)** To
42-0127290	61271	707844	1257	01/01/2017	12/31/2017

2 Insurance fee and commission information. Enter the total fees and total commissions paid. List in line 3 the agents, brokers, and other persons in descending order of the amount paid.

(a) Total amount of commissions paid	**(b)** Total amount of fees paid
0	0

3 Persons receiving commissions and fees. (Complete as many entries as needed to report all persons).

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid **(c)** Amount	**(d)** Purpose	**(e)** Organization code

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid **(c)** Amount	**(d)** Purpose	**(e)** Organization code

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		**(e)** Organization code
	(c) Amount	**(d)** Purpose	

Part II Investment and Annuity Contract Information

Where individual contracts are provided, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

4	Current value of plan's interest under this contract in the general account at year end	**4**	0
5	Current value of plan's interest under this contract in separate accounts at year end	**5**	18491092

6 Contracts With Allocated Funds:

a State the basis of premium rates ▶

b	Premiums paid to carrier	**6b**	
c	Premiums due but unpaid at the end of the year	**6c**	
d	If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, enter amount.	**6d**	

Specify nature of costs ▶

e Type of contract: (1) ☐ individual policies (2) ☐ group deferred annuity

(3) ☐ other (specify) ▶

f If contract purchased, in whole or in part, to distribute benefits from a terminating plan, check here ▶ ☐

7 Contracts With Unallocated Funds (Do not include portions of these contracts maintained in separate accounts)

a Type of contract: (1) ☐ deposit administration (2) ☐ immediate participation guarantee

(3) ☐ guaranteed investment (4) ☐ other ▶

b	Balance at the end of the previous year		**7b**	
c	Additions: (1) Contributions deposited during the year	**7c(1)**		
	(2) Dividends and credits	**7c(2)**		
	(3) Interest credited during the year	**7c(3)**		
	(4) Transferred from separate account	**7c(4)**		
	(5) Other (specify below) ▶	**7c(5)**		
	(6)Total additions		**7c(6)**	
d	Total of balance and additions (add lines **7b** and **7c(6)**).		**7d**	
e	Deductions:			
	(1) Disbursed from fund to pay benefits or purchase annuities during year	**7e(1)**		
	(2) Administration charge made by carrier	**7e(2)**		
	(3) Transferred to separate account	**7e(3)**		
	(4) Other (specify below) ▶	**7e(4)**		
	(5) Total deductions		**7e(5)**	
f	Balance at the end of the current year (subtract line **7e(5)** from line **7d**)		**7f**	0

Part III Welfare Benefit Contract Information

If more than one contract covers the same group of employees of the same employer(s) or members of the same employee organizations(s), the information may be combined for reporting purposes if such contracts are experience-rated as a unit. Where contracts cover individual employees, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

8 Benefit and contract type (check all applicable boxes)

- **a** ☐ Health (other than dental or vision)
- **b** ☐ Dental
- **c** ☐ Vision
- **d** ☐ Life insurance
- **e** ☐ Temporary disability (accident and sickness)
- **f** ☐ Long-term disability
- **g** ☐ Supplemental unemployment
- **h** ☐ Prescription drug
- **i** ☐ Stop loss (large deductible)
- **j** ☐ HMO contract
- **k** ☐ PPO contract
- **l** ☐ Indemnity contract
- **m** ☐ Other (specify) ▶

9 Experience-rated contracts:				
a Premiums: (1) Amount received	9a(1)			
(2) Increase (decrease) in amount due but unpaid	9a(2)			
(3) Increase (decrease) in unearned premium reserve	9a(3)			
(4) Earned (**(1)** + **(2)** - **(3)**)			9a(4)	
b Benefit charges (1) Claims paid	9b(1)			
(2) Increase (decrease) in claim reserves	9b(2)			
(3) Incurred claims (add **(1)** and **(2)**)			9b(3)	
(4) Claims charged			9b(4)	
c Remainder of premium: (1) Retention charges (on an accrual basis) --				
(A) Commissions	9c(1)(A)			
(B) Administrative service or other fees	9c(1)(B)			
(C) Other specific acquisition costs	9c(1)(C)			
(D) Other expenses	9c(1)(D)			
(E) Taxes	9c(1)(E)			
(F) Charges for risks or other contingencies	9c(1)(F)			
(G) Other retention charges	9c(1)(G)			
(H) Total retention			9c(1)(H)	
(2) Dividends or retroactive rate refunds. (These amounts were ☐ paid in cash, or ☐ credited.)			9c(2)	
d Status of policyholder reserves at end of year: (1) Amount held to provide benefits after retirement			9d(1)	
(2) Claim reserves			9d(2)	
(3) Other reserves			9d(3)	
e Dividends or retroactive rate refunds due. (Do not include amount entered in line **9c(2)**.)			9e	
10 Nonexperience-rated contracts:				
a Total premiums or subscription charges paid to carrier			10a	
b If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, other than reported in Part I, line 2 above, report amount.			10b	

Specify nature of costs.

Part IV Provision of Information

11 Did the insurance company fail to provide any information necessary to complete Schedule A? ☐ Yes ☒ No

12 If the answer to line 11 is "Yes," specify the information not provided. ▶

SCHEDULE C (Form 5500)	Service Provider Information	OMB No. 1210-0110
Department of the Treasury Internal Revenue Service	This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).	2017
Department of Labor Employee Benefits Security Administration	▶ **File as an attachment to Form 5500.**	**This Form is Open to Public Inspection.**
Pension Benefit Guaranty Corporation		

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

A Name of plan
ALERIS 401(K) PLAN

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500
ALERIS OHIO MANAGEMENT, INC

D Employer Identification Number (EIN)
27-1539961

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

PRINCIPAL LIFE INSURANCE COMPANY

42-0127290

(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

(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)

PRINCIPAL LIFE INSURANCE COMPANY

42-0127290

(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?
13 37 50 64	CONTRACT ADMINISTRATOR	199946	Yes [X] No [ ]	Yes [X] No [ ]	0	Yes [ ] No [X]

(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 [ ]

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)

(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 ☐

(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)	DFE/Participating Plan Information	OMB No. 1210-0110
Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration	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.**	**2017** **This Form is Open to Public Inspection.**

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

A Name of plan
ALERIS 401(K) PLAN

B Three-digit plan number (PN) ▶ 001

C Plan or DFE sponsor's name as shown on line 2a of Form 5500
ALERIS OHIO MANAGEMENT, INC

D Employer Identification Number (EIN)
27-1539961

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: PRIN INTL SMALLCAP SEP ACCT-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN 42-0127290-014 | **d** Entity code P | **e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 3597652

a Name of MTIA, CCT, PSA, or 103-12 IE: PRIN CORE PLUS BOND SEP ACCT-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN 42-0127290-005 | **d** Entity code P | **e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 3195132

a Name of MTIA, CCT, PSA, or 103-12 IE: PRIN LGCP S&P 500 INDEX SA-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN 42-0127290-016 | **d** Entity code P | **e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 11698308

a Name of MTIA, CCT, PSA, or 103-12 IE: PRIN LIFETM 2010 SEP ACCT-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN 42-0127290-075 | **d** Entity code P | **e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 0

a Name of MTIA, CCT, PSA, or 103-12 IE: PRIN LIFETIME 2020 SEP ACCT-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN 42-0127290-076 | **d** Entity code P | **e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 0

a Name of MTIA, CCT, PSA, or 103-12 IE: PRINL LIFETIME 2030 SEP ACCT-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN 42-0127290-077 | **d** Entity code P | **e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 0

a Name of MTIA, CCT, PSA, or 103-12 IE: PRIN LIFETIME 2040 SEP ACCT-Z

b Name of sponsor of entity listed in (a): PRINCIPAL LIFE INSURANCE COMPANY

c EIN-PN 42-0127290-078 | **d** Entity code P | **e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 0

a Name of MTIA, CCT, PSA, or 103-12 IE:	PRIN LIFETIME 2050 SEP ACCT-Z		
b Name of sponsor of entity listed in (a):	PRINCIPAL LIFE INSURANCE COMPANY		
c EIN-PN 42-0127290-079	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)	0
a Name of MTIA, CCT, PSA, or 103-12 IE:	PRIN LIFETIME STRAT INC SA-Z		
b Name of sponsor of entity listed in (a):	PRINCIPAL LIFE INSURANCE COMPANY		
c EIN-PN 42-0127290-080	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)	0
a Name of MTIA, CCT, PSA, or 103-12 IE:	PRIN LIFETIME HYBR 2010 CIT Z		
b Name of sponsor of entity listed in (a):	PRINCIPAL GLOBAL INVESTORS TRUST CO		
c EIN-PN 26-6447574-001	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)	1852599
a Name of MTIA, CCT, PSA, or 103-12 IE:	PRIN LIFETIME HYBR 2020 CIT Z		
b Name of sponsor of entity listed in (a):	PRINCIPAL GLOBAL INVESTORS TRUST CO		
c EIN-PN 26-6447574-003	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)	10163698
a Name of MTIA, CCT, PSA, or 103-12 IE:	PRIN LIFETIME HYBR 2030 CIT Z		
b Name of sponsor of entity listed in (a):	PRINCIPAL GLOBAL INVESTORS TRUST CO		
c EIN-PN 26-6447574-005	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)	19121314
a Name of MTIA, CCT, PSA, or 103-12 IE:	PRIN LIFETIME HYBR 2040 CIT Z		
b Name of sponsor of entity listed in (a):	PRINCIPAL GLOBAL INVESTORS TRUST CO		
c EIN-PN 26-6447574-007	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)	11926016
a Name of MTIA, CCT, PSA, or 103-12 IE:	PRIN LIFETIME HYBR 2050 CIT Z		
b Name of sponsor of entity listed in (a):	PRINCIPAL GLOBAL INVESTORS TRUST CO		
c EIN-PN 26-6447574-009	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)	3842502
a Name of MTIA, CCT, PSA, or 103-12 IE:	PRIN LIFETIME HYBR INC CIT Z		
b Name of sponsor of entity listed in (a):	PRINCIPAL GLOBAL INVESTORS TRUST CO		
c EIN-PN 26-6447574-011	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)	1720203
a Name of MTIA, CCT, PSA, or 103-12 IE:	PRIN LIFETIME 2060 SEP ACCT-Z		
b Name of sponsor of entity listed in (a):	PRINCIPAL LIFE INSURANCE COMPANY		
c EIN-PN 42-0127290-130	**d** Entity code P	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)	0
a Name of MTIA, CCT, PSA, or 103-12 IE:	PRIN LIFETIME HYBR 2060 CIT Z		
b Name of sponsor of entity listed in (a):	PRINCIPAL GLOBAL INVESTORS TRUST CO		
c EIN-PN 26-6447574-012	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)	355568

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

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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)	Financial 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), and section 6058(a) of the Internal Revenue Code (the Code). ▶ **File as an attachment to Form 5500.**	**2017** **This Form is Open to Public Inspection**

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

A Name of plan
ALERIS 401(K) PLAN

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500
ALERIS OHIO MANAGEMENT, INC

D Employer Identification Number (EIN)
27-1539961

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)	991466	958867
(2) Participant contributions	1b(2)	0	0
(3) Other	1b(3)	0	0
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)	1623417	1685354
(9) Value of interest in common/collective trusts	1c(9)	0	48981900
(10) Value of interest in pooled separate accounts	1c(10)	55310239	18491092
(11) Value of interest in master trust investment accounts	1c(11)		
(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)	28561800	35768327
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)	16095187	15381010
(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	102582109	121266550
Liabilities			
g Benefit claims payable	1g	0	
h Operating payables	1h	0	
i Acquisition indebtedness	1i	0	
j Other liabilities	1j	0	
k Total liabilities (add all amounts in lines 1g through1j)	1k	0	0
Net Assets			
l Net assets (subtract line 1k from line 1f)	1l	102582109	121266550

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)	3589475	
(B) Participants	2a(1)(B)	5852933	
(C) Others (including rollovers)	2a(1)(C)	1439489	
(2) Noncash contributions	2a(2)		
(3) Total contributions. Add lines **2a(1)(A), (B), (C),** and line **2a(2)**	2a(3)		10881897
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)	0	
(B) U.S. Government securities	2b(1)(B)	0	
(C) Corporate debt instruments	2b(1)(C)	0	
(D) Loans (other than to participants)	2b(1)(D)	0	
(E) Participant loans	2b(1)(E)	71825	
(F) Other	2b(1)(F)	219146	
(G) Total interest. Add lines **2b(1)(A)** through **(F)**	2b(1)(G)		290971
(2) Dividends: **(A)** Preferred stock	2b(2)(A)	0	
(B) Common stock	2b(2)(B)	0	
(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)	454393	
(D) Total dividends. Add lines **2b(2)(A)**, **(B)**, and **(C)**	2b(2)(D)		454393
(3) Rents	2b(3)		0
(4) Net gain (loss) on sale of assets: **(A)** Aggregate proceeds	2b(4)(A)	0	
(B) Aggregate carrying amount (see instructions)	2b(4)(B)	0	
(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)	0	
(B) Other	2b(5)(B)	0	
(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)		2496772
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		7908271
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		0
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		0
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		5629940
c Other income	2c		2307
d Total income. Add all **income** amounts in column (b) and enter total	2d		27664551
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	8758106	
(2) To insurance carriers for the provision of benefits	2e(2)	0	
(3) Other	2e(3)	0	
(4) Total benefit payments. Add lines **2e(1)** through **(3)**	2e(4)		8758106
f Corrective distributions (see instructions)	2f		1002
g Certain deemed distributions of participant loans (see instructions)	2g		21056
h Interest expense	2h		
i Administrative expenses: (1) Professional fees	2i(1)	0	
(2) Contract administrator fees	2i(2)	199946	
(3) Investment advisory and management fees	2i(3)	0	
(4) Other	2i(4)	0	
(5) Total administrative expenses. Add lines **2i(1)** through **(4)**	2i(5)		199946
j Total expenses. Add all **expense** amounts in column (b) and enter total	2j		8980110
Net Income and Reconciliation			
k Net income (loss). Subtract line **2j** from line **2d**	2k		18684441
l Transfers of assets:			
(1) To this plan	2l(1)		0
(2) From this plan	2l(2)		

Part III Accountant's Opinion

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

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

(1) ☐ Unqualified **(2)** ☐ Qualified **(3)** ☒ 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: BDO USA, LLP **(2)** EIN: 13-5381590

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	0
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	0

			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	0
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	0
e	Was this plan covered by a fidelity bond?	4e	X		10000000
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		X	
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_____. (See instructions.)

SCHEDULE R (Form 5500)	Retirement Plan 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 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.**	**2017** **This Form is Open to Public Inspection.**

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

A Name of plan
ALERIS 401(K) PLAN

B Three-digit plan number (PN) ▶ 001

C Plan sponsor's name as shown on line 2a of Form 5500
ALERIS OHIO MANAGEMENT, INC

D Employer Identification Number (EIN)
27-1539961

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): 42-0127290 _____

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**

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

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

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

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

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

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

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

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

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

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

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

Part III Amendments

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

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

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

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

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

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

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

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

a Name of contributing employer

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

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

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify):

a Name of contributing employer

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

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

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

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

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

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

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

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

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

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

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

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

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

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

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

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

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

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

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

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

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

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

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

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

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

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

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

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

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Cleveland, OH 44115

Independent Auditor's Report

To the Benefits Committee
Aleris 401(k) Plan
Beachwood, Ohio

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of the Aleris 401(k) Plan (the Plan), which comprise the statements of net assets available for benefits as of December 31, 2017 and 2016, and the related statement of changes in net assets available for benefits for the year ended December 31, 2017, 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; this includes 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.

Auditor's 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 3, which was certified by Delaware Charter Guarantee and Trust Company d/b/a Principal Trust Company, the trustee of the Plan, except for comparing such 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 December 31, 2017 and 2016, and for the year ended December 31, 2017, that the information provided to the plan administrator by the trustee is complete and accurate.

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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.

Other Matter – Supplemental Schedule

The supplemental Schedule of Assets (Held at End of Year) as of December 31, 2017 is required by the Department of Labor's (DOL) Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 and is presented for the purpose of additional analysis and is not a required part of the financial statements. Because of the significance of the matter described in the *Basis for Disclaimer of Opinion* paragraph, we do not express an opinion on this supplemental schedule.

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

The form and content of the information included in the financial statements and supplemental schedule, 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.

BDO USA, LLP

Cleveland, Ohio
October 11, 2018

F051TF

SCHEDULE H, line 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)

ALERIS 401(K) PLAN

EIN 27 1539961
PLAN NUMBER 001
PLAN YEAR 01/01/2017 TO 12/31/2017

(A)	(B) Identity of issuer, borrower, lessor or similar party.	(C) Description of investment including maturity date, rate of interest, collateral, par or maturity value.	(D) Cost	(E) Current Value
	The American Funds	Registered Investment Company Am Fds EuroPacific Grth R6 Fd	$ 0.00	$ 5,739,495.83
	The American Funds	Registered Investment Company Am Fds Grth Fd of Am R6 Fund	$ 0.00	$ 9,263,175.89
*	Principal Life Insurance Company	Insurance Company General Guaranteed Fund	$ 0.00	$ 15,381,009.80
*	Principal Life Insurance Company	Pooled Separate Accounts Prin Core Plus Bond Sep Acct-Z	$ 0.00	$ 3,195,132.28
*	Principal Life Insurance Company	Pooled Separate Accounts Prin Intl SmallCap Sep Acct-Z	$ 0.00	$ 3,597,651.57
*	Principal Life Insurance Company	Pooled Separate Accounts Prin LgCp S&P 500 Index SA-Z	$ 0.00	$ 11,698,307.87
*	Principal Global Investors Trust Co	Common/Collective Trust PRIN LIFETIME HYBR INC CIT Z	$ 0.00	$ 1,720,202.87
*	Principal Global Investors Trust Co	Common/Collective Trust PRIN LIFETIME HYBR 2010 CIT Z	$ 0.00	$ 1,852,599.03
*	Principal Global Investors Trust Co	Common/Collective Trust PRIN LIFETIME HYBR 2020 CIT Z	$ 0.00	$ 10,163,698.34
*	Principal Global Investors Trust Co	Common/Collective Trust PRIN LIFETIME HYBR 2030 CIT Z	$ 0.00	$ 19,121,313.73
*	Principal Global Investors Trust Co	Common/Collective Trust PRIN LIFETIME HYBR 2040 CIT Z	$ 0.00	$ 11,926,015.81
*	Principal Global Investors Trust Co	Common/Collective Trust PRIN LIFETIME HYBR 2050 CIT Z	$ 0.00	$ 3,842,502.24
*	Principal Global Investors Trust Co	Common/Collective Trust PRIN LIFETIME HYBR 2060 CIT Z	$ 0.00	$ 355,567.73
	Vanguard Group	Registered Investment Company Vanguard MidCp Grth Idx Adm Fd	$ 0.00	$ 4,713,418.94
	Vanguard Group	Registered Investment Company Vanguard Sm Cap Index Adm Fund	$ 0.00	$ 6,010,788.61

SCHEDULE H, line 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)

SCHEDULE H, line 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)

ALERIS 401(K) PLAN

EIN 27 1539961
PLAN NUMBER 001
PLAN YEAR 01/01/2017 TO 12/31/2017

(A)	(B) Identity of issuer, borrower, lessor or similar party.	(C) Description of investment including maturity date, rate of interest, collateral, par or maturity value.	(D) Cost	(E) Current Value
	Vanguard Group	Registered Investment Company Vanguard Ttl Bd Mkt Idx Inst	$ 0.00	$ 1,751,598.45
	Vanguard Group	Registered Investment Company Vanguard Windsor II Adm Fund	$ 0.00	$ 8,289,849.27
*	Participant Loans	Range of Interest Rates Rates Range From 4.25% To 9.25%	$ 0.00	$ 1,685,354.00