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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form 5500</b><br><br>Department of the Treasury<br>Internal Revenue Service<br><br>Department of Labor<br>Employee Benefits Security<br>Administration<br><br>Pension Benefit Guaranty Corporation | <b>Annual Return/Report of Employee Benefit Plan</b><br>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).<br><br><p style="text-align: center;">▶ <b>Complete all entries in accordance with the instructions to the Form 5500.</b></p> | OMB Nos. 1210-0110<br>1210-0089<br><br><div style="text-align: center; font-size: 1.5em; font-weight: bold;">2019</div><br><br><b>This Form is Open to Public Inspection</b> |
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|                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Part I</b>                                                                                            | <b>Annual Report Identification Information</b>                                                                                                                                                                                                                                                                                                                                   |
| For calendar plan year 2019 or fiscal plan year beginning <u>01/01/2019</u> and ending <u>12/31/2019</u> |                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>A</b>                                                                                                 | This return/report is for: <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> a multiemployer plan         </div> <div> <input type="checkbox"/> a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)         </div> </div>            |
|                                                                                                          | <input checked="" type="checkbox"/> a single-employer plan <div style="margin-left: 100px;"><input type="checkbox"/> a DFE (specify) _____</div>                                                                                                                                                                                                                                  |
| <b>B</b>                                                                                                 | This return/report is: <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> the first return/report<br/> <input type="checkbox"/> an amended return/report         </div> <div> <input type="checkbox"/> the final return/report<br/> <input type="checkbox"/> a short plan year return/report (less than 12 months)         </div> </div> |
| <b>C</b>                                                                                                 | If the plan is a collectively-bargained plan, check here. . . . . ▶ <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                           |
| <b>D</b>                                                                                                 | Check box if filing under: <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Form 5558<br/> <input type="checkbox"/> special extension (enter description)         </div> <div> <input type="checkbox"/> automatic extension         </div> <div> <input type="checkbox"/> the DFVC program         </div> </div>            |

|                |                                                                                                                                                                                                                                                                                                                                                                                                           |                     |                                      |                   |           |                                 |                     |           |                                  |               |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------|-------------------|-----------|---------------------------------|---------------------|-----------|----------------------------------|---------------|
| <b>Part II</b> | <b>Basic Plan Information</b> —enter all requested information                                                                                                                                                                                                                                                                                                                                            |                     |                                      |                   |           |                                 |                     |           |                                  |               |
| <b>1a</b>      | Name of plan<br><u>ALERIS RETIREMENT PLAN FOR BARGAINED EMPLOYEES</u>                                                                                                                                                                                                                                                                                                                                     |                     |                                      |                   |           |                                 |                     |           |                                  |               |
|                | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"><b>1b</b></td> <td>Three-digit plan number (PN) ▶</td> <td><u>003</u></td> </tr> <tr> <td><b>1c</b></td> <td>Effective date of plan</td> <td><u>05/23/2003</u></td> </tr> </table>                                                                                                                        | <b>1b</b>           | Three-digit plan number (PN) ▶       | <u>003</u>        | <b>1c</b> | Effective date of plan          | <u>05/23/2003</u>   |           |                                  |               |
| <b>1b</b>      | Three-digit plan number (PN) ▶                                                                                                                                                                                                                                                                                                                                                                            | <u>003</u>          |                                      |                   |           |                                 |                     |           |                                  |               |
| <b>1c</b>      | Effective date of plan                                                                                                                                                                                                                                                                                                                                                                                    | <u>05/23/2003</u>   |                                      |                   |           |                                 |                     |           |                                  |               |
| <b>2a</b>      | Plan sponsor's name (employer, if for a single-employer plan)<br>Mailing address (include room, apt., suite no. and street, or P.O. Box)<br>City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions)<br><u>ALERIS ROLLED PRODUCTS, INC.</u><br><br><u>25825 SCIENCE PARK DR STE 400</u><br><u>BEACHWOOD, OH 44122-7392</u>                                 |                     |                                      |                   |           |                                 |                     |           |                                  |               |
|                | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"><b>2b</b></td> <td>Employer Identification Number (EIN)</td> <td><u>27-1539745</u></td> </tr> <tr> <td><b>2c</b></td> <td>Plan Sponsor's telephone number</td> <td><u>216-910-3400</u></td> </tr> <tr> <td><b>2d</b></td> <td>Business code (see instructions)</td> <td><u>238300</u></td> </tr> </table> | <b>2b</b>           | Employer Identification Number (EIN) | <u>27-1539745</u> | <b>2c</b> | Plan Sponsor's telephone number | <u>216-910-3400</u> | <b>2d</b> | Business code (see instructions) | <u>238300</u> |
| <b>2b</b>      | Employer Identification Number (EIN)                                                                                                                                                                                                                                                                                                                                                                      | <u>27-1539745</u>   |                                      |                   |           |                                 |                     |           |                                  |               |
| <b>2c</b>      | Plan Sponsor's telephone number                                                                                                                                                                                                                                                                                                                                                                           | <u>216-910-3400</u> |                                      |                   |           |                                 |                     |           |                                  |               |
| <b>2d</b>      | Business code (see instructions)                                                                                                                                                                                                                                                                                                                                                                          | <u>238300</u>       |                                      |                   |           |                                 |                     |           |                                  |               |

**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.

|                  |                                                   |            |                                                              |
|------------------|---------------------------------------------------|------------|--------------------------------------------------------------|
| <b>SIGN HERE</b> | Filed with authorized/valid electronic signature. | 10/13/2020 | JOHN TILLMAN                                                 |
|                  | Signature of plan administrator                   | Date       | Enter name of individual signing as plan administrator       |
| <b>SIGN HERE</b> | Filed with authorized/valid electronic signature. |            |                                                              |
|                  | Signature of employer/plan sponsor                | Date       | Enter name of individual signing as employer or plan sponsor |
| <b>SIGN HERE</b> | Filed with authorized/valid electronic signature. |            |                                                              |
|                  | Signature of DFE                                  | Date       | Enter name of individual signing as DFE                      |

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Form 5500 (2019)  
v. 190130

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3a</b> Plan administrator's name and address <input checked="" type="checkbox"/> Same as Plan Sponsor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>3b</b> Administrator's EIN<br><br><b>3c</b> Administrator's telephone number<br><br><div style="background-color: #cccccc; height: 40px; width: 100%;"></div> |
| <b>4</b> 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:<br><b>a</b> Sponsor's name<br><b>c</b> Plan Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>4b</b> EIN<br><br><b>4d</b> PN                                                                                                                                |
| <b>5</b> Total number of participants at the beginning of the plan year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>5</b> 182                                                                                                                                                     |
| <b>6</b> Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines <b>6a(1)</b> , <b>6a(2)</b> , <b>6b</b> , <b>6c</b> , and <b>6d</b> ).<br><br><b>a(1)</b> Total number of active participants at the beginning of the plan year .....<br><b>a(2)</b> Total number of active participants at the end of the plan year .....<br><br><b>b</b> Retired or separated participants receiving benefits.....<br><b>c</b> Other retired or separated participants entitled to future benefits .....<br><b>d</b> Subtotal. Add lines <b>6a(2)</b> , <b>6b</b> , and <b>6c</b> .....<br><b>e</b> Deceased participants whose beneficiaries are receiving or are entitled to receive benefits. ....<br><b>f</b> Total. Add lines <b>6d</b> and <b>6e</b> .....<br><br><b>g</b> Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) .....<br><br><b>h</b> Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested ..... | <b>6a(1)</b> 34<br><b>6a(2)</b> 27<br><b>6b</b> 82<br><b>6c</b> 56<br><b>6d</b> 165<br><b>6e</b> 14<br><b>6f</b> 179<br><br><b>6g</b><br><br><b>6h</b> 0         |
| <b>7</b> Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item) .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>7</b>                                                                                                                                                         |
| <b>8a</b> If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:<br>1B 1I 3D 3H<br><br><b>b</b> If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                  |

|                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>9a</b> Plan funding arrangement (check all that apply)<br>(1) <input type="checkbox"/> Insurance<br>(2) <input type="checkbox"/> Code section 412(e)(3) insurance contracts<br>(3) <input checked="" type="checkbox"/> Trust<br>(4) <input type="checkbox"/> General assets of the sponsor | <b>9b</b> Plan benefit arrangement (check all that apply)<br>(1) <input type="checkbox"/> Insurance<br>(2) <input type="checkbox"/> Code section 412(e)(3) insurance contracts<br>(3) <input checked="" type="checkbox"/> Trust<br>(4) <input type="checkbox"/> 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) ☒ **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) ☒ **H** (Financial Information)
- (2) ☐ **I** (Financial Information – Small Plan)
- (3) ☐ 0 **A** (Insurance Information)
- (4) ☒ **C** (Service Provider Information)
- (5) ☒ **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 \_\_\_\_\_

|                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                    |                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>SCHEDULE SB</b><br><b>(Form 5500)</b><br><br><small>Department of the Treasury<br/>Internal Revenue Service</small><br><br><small>Department of Labor<br/>Employee Benefits Security Administration</small><br><br><small>Pension Benefit Guaranty Corporation</small> | <b>Single-Employer Defined Benefit Plan</b><br><b>Actuarial Information</b><br><br>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).<br><br><b>► File as an attachment to Form 5500 or 5500-SF.</b> | <small>OMB No. 1210-0110</small><br><br><b>2019</b><br><br><b>This Form is Open to Public Inspection</b> |
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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.

|                                                                                                                                                         |                                                                    |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------|
| <b>A</b> Name of plan<br><u>ALERIS RETIREMENT PLAN FOR BARGAINED EMPLOYEES</u>                                                                          | <b>B</b> Three-digit plan number (PN) ►                            | <u>003</u> |
|                                                                                                                                                         |                                                                    |            |
| <b>C</b> Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF<br><u>ALERIS ROLLED PRODUCTS, INC.</u>                                         | <b>D</b> Employer Identification Number (EIN)<br><u>27-1539745</u> |            |
|                                                                                                                                                         |                                                                    |            |
| <b>E</b> Type of plan: <input checked="" type="checkbox"/> Single <input type="checkbox"/> Multiple-A <input type="checkbox"/> Multiple-B               |                                                                    |            |
| <b>F</b> Prior year plan size: <input type="checkbox"/> 100 or fewer <input type="checkbox"/> 101-500 <input checked="" type="checkbox"/> More than 500 |                                                                    |            |

|               |                                                                                                                                                                                                                |                            |                           |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------|
| <b>Part I</b> | <b>Basic Information</b>                                                                                                                                                                                       |                            |                           |
| <b>1</b>      | Enter the valuation date:      Month <u>01</u> Day <u>01</u> Year <u>2019</u>                                                                                                                                  |                            |                           |
| <b>2</b>      | Assets:                                                                                                                                                                                                        |                            |                           |
|               | <b>a</b> Market value .....                                                                                                                                                                                    | <b>2a</b>                  | <u>3674193</u>            |
|               | <b>b</b> Actuarial value .....                                                                                                                                                                                 | <b>2b</b>                  | <u>3893184</u>            |
| <b>3</b>      | Funding target/participant count breakdown                                                                                                                                                                     | (1) Number of participants | (2) Vested Funding Target |
|               | <b>a</b> For retired participants and beneficiaries receiving payment.....                                                                                                                                     | <u>92</u>                  | <u>2104173</u>            |
|               | <b>b</b> For terminated vested participants.....                                                                                                                                                               | <u>56</u>                  | <u>1134178</u>            |
|               | <b>c</b> For active participants .....                                                                                                                                                                         | <u>34</u>                  | <u>865424</u>             |
|               | <b>d</b> Total.....                                                                                                                                                                                            | <u>182</u>                 | <u>4103775</u>            |
| <b>4</b>      | If the plan is in at-risk status, check the box and complete lines (a) and (b)..... <input type="checkbox"/>                                                                                                   |                            |                           |
|               | <b>a</b> Funding target disregarding prescribed at-risk assumptions .....                                                                                                                                      | <b>4a</b>                  |                           |
|               | <b>b</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..... | <b>4b</b>                  |                           |
| <b>5</b>      | Effective interest rate .....                                                                                                                                                                                  | <b>5</b>                   | <u>5.61</u> %             |
| <b>6</b>      | Target normal cost.....                                                                                                                                                                                        | <b>6</b>                   | <u>151622</u>             |

**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.

|                      |                                                              |                                        |
|----------------------|--------------------------------------------------------------|----------------------------------------|
| <b>SIGN<br/>HERE</b> |                                                              |                                        |
|                      | Signature of actuary                                         | <u>09/25/2020</u>                      |
|                      | <u>NICHOLAS FRIES</u>                                        | Date<br><u>20-07926</u>                |
|                      | Type or print name of actuary                                | Most recent enrollment number          |
|                      | <u>MERCER</u>                                                | <u>216-830-8031</u>                    |
|                      | Firm name                                                    | Telephone number (including area code) |
|                      | <u>200 PUBLIC SQUARE, SUITE 3760<br/>CLEVELAND, OH 44114</u> |                                        |
|                      | 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 ☐

**For Paperwork Reduction Act Notice, see the Instructions for Form 5500 or 5500-SF.**

**Schedule SB (Form 5500) 2019  
v. 190130**

| Part II Beginning of Year Carryover and Prefunding Balances                                                                                                          |                       |                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------|
|                                                                                                                                                                      | (a) Carryover balance | (b) Prefunding balance |
| <b>7</b> Balance at beginning of prior year after applicable adjustments (line 13 from prior year) .....                                                             | 0                     | 0                      |
| <b>8</b> Portion elected for use to offset prior year's funding requirement (line 35 from prior year) .....                                                          | 0                     | 0                      |
| <b>9</b> Amount remaining (line 7 minus line 8) .....                                                                                                                | 0                     | 0                      |
| <b>10</b> Interest on line 9 using prior year's actual return of <u>-6.14</u> % .....                                                                                | 0                     | 0                      |
| <b>11</b> Prior year's excess contributions to be added to prefunding balance:                                                                                       |                       |                        |
| <b>a</b> Present value of excess contributions (line 38a from prior year) .....                                                                                      |                       | 132                    |
| <b>b(1)</b> 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 <u>5.78</u> % ..... |                       | 8                      |
| <b>b(2)</b> Interest on line 38b from prior year Schedule SB, using prior year's actual return .....                                                                 |                       | 0                      |
| <b>c</b> Total available at beginning of current plan year to add to prefunding balance .....                                                                        |                       | 140                    |
| <b>d</b> Portion of (c) to be added to prefunding balance .....                                                                                                      |                       | 0                      |
| <b>12</b> Other reductions in balances due to elections or deemed elections .....                                                                                    | 0                     | 0                      |
| <b>13</b> Balance at beginning of current year (line 9 + line 10 + line 11d – line 12) .....                                                                         | 0                     | 0                      |

| Part III Funding Percentages                                                                                                                                               |           |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------|
| <b>14</b> Funding target attainment percentage .....                                                                                                                       | <b>14</b> | 92.30 % |
| <b>15</b> Adjusted funding target attainment percentage .....                                                                                                              | <b>15</b> | 92.30 % |
| <b>16</b> Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement ..... | <b>16</b> | 98.11 % |
| <b>17</b> If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage .....                                        | <b>17</b> | %       |

| Part IV Contributions and Liquidity Shortfalls                                           |                                   |                                 |                          |                                   |                                 |
|------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------|--------------------------|-----------------------------------|---------------------------------|
| <b>18</b> Contributions made to the plan for the plan year by employer(s) and employees: |                                   |                                 |                          |                                   |                                 |
| (a) Date<br>(MM-DD-YYYY)                                                                 | (b) Amount paid by<br>employer(s) | (c) Amount paid by<br>employees | (a) Date<br>(MM-DD-YYYY) | (b) Amount paid by<br>employer(s) | (c) Amount paid by<br>employees |
| 04/10/2019                                                                               | 34000                             | 0                               |                          |                                   |                                 |
| 07/11/2019                                                                               | 34000                             | 0                               |                          |                                   |                                 |
| 10/10/2019                                                                               | 34000                             | 0                               |                          |                                   |                                 |
| 01/10/2020                                                                               | 34000                             | 0                               |                          |                                   |                                 |
| 09/14/2020                                                                               | 85000                             | 0                               |                          |                                   |                                 |
|                                                                                          |                                   |                                 | <b>Totals ►</b>          | <b>18(b)</b>                      | 221000                          |
|                                                                                          |                                   |                                 |                          | <b>18(c)</b>                      | 0                               |

|                                                                                                                                                                                       |            |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|
| <b>19</b> Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:                                                  |            |         |
| <b>a</b> Contributions allocated toward unpaid minimum required contributions from prior years .....                                                                                  | <b>19a</b> | 0       |
| <b>b</b> Contributions made to avoid restrictions adjusted to valuation date .....                                                                                                    | <b>19b</b> | 0       |
| <b>c</b> Contributions allocated toward minimum required contribution for current year adjusted to valuation date .....                                                               | <b>19c</b> | 208748  |
| <b>20</b> Quarterly contributions and liquidity shortfalls:                                                                                                                           |            |         |
| <b>a</b> Did the plan have a "funding shortfall" for the prior year? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                              |            |         |
| <b>b</b> If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |            |         |
| <b>c</b> 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 |
| 0                                                                                                                                                                                     | 0          | 0       |
|                                                                                                                                                                                       |            | (4) 4th |
|                                                                                                                                                                                       |            | 0       |

**Part V Assumptions Used to Determine Funding Target and Target Normal Cost****21** Discount rate:**a** Segment rates:1st segment:  
3.74 %2nd segment:  
5.35 %3rd segment:  
6.11 %☐ N/A, full yield curve used**b** Applicable month (enter code) .....**21b**

0

**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** 151622**b** Excess assets, if applicable, but not greater than line 31a ..... **31b** 0**32** Amortization installments:**a** Net shortfall amortization installment ..... Outstanding Balance 324533 Installment 56975**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** 208597

|                                                                        | Carryover balance | Prefunding balance | Total balance |
|------------------------------------------------------------------------|-------------------|--------------------|---------------|
| <b>35</b> Balances elected for use to offset funding requirement ..... | 0                 | 0                  | 0             |

**36** Additional cash requirement (line 34 minus line 35) ..... **36** 208597**37** Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c) ..... **37** 208748**38** Present value of excess contributions for current year (see instructions)**a** Total (excess, if any, of line 37 over line 36) ..... **38a** 151**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

|                                                                                                                                                                                                                           |                                                                                                                                                                                                                        |                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>SCHEDULE C</b><br><b>(Form 5500)</b><br><br>Department of the Treasury<br>Internal Revenue Service<br><br>Department of Labor<br>Employee Benefits Security Administration<br><br>Pension Benefit Guaranty Corporation | <b>Service Provider Information</b><br><br>This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).<br><br><b>► File as an attachment to Form 5500.</b> | OMB No. 1210-0110                              |
|                                                                                                                                                                                                                           |                                                                                                                                                                                                                        | <b>2019</b>                                    |
|                                                                                                                                                                                                                           |                                                                                                                                                                                                                        | <b>This Form is Open to Public Inspection.</b> |

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

|                                                                                                      |                                                                    |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>A</b> Name of plan<br><b>ALERIS RETIREMENT PLAN FOR BARGAINED EMPLOYEES</b>                       | <b>B</b> Three-digit plan number (PN) <b>►</b> <b>003</b>          |
| <b>C</b> Plan sponsor's name as shown on line 2a of Form 5500<br><b>ALERIS ROLLED PRODUCTS, INC.</b> | <b>D</b> Employer Identification Number (EIN)<br><b>27-1539745</b> |

|               |                                                        |
|---------------|--------------------------------------------------------|
| <b>Part I</b> | <b>Service Provider Information (see instructions)</b> |
|---------------|--------------------------------------------------------|

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)..... ☒ 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>(b)</b> Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation |                                                           |
| <b>NEUBERGER BERMAN</b>                                                                                           | <b>1290 AVENUE OF THE AMERICAS<br/>NEW YORK, NY 10104</b> |

|                                                                                                                   |                                                        |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <b>(b)</b> Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation |                                                        |
| <b>FRANKLIN TEMPLETON INVESTMENTS</b>                                                                             | <b>P.O. BOX 33030<br/>ST PETERSBURG, FL 33733-8030</b> |

|                                                                                                                   |  |
|-------------------------------------------------------------------------------------------------------------------|--|
| <b>(b)</b> Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation |  |
| <b>VANGUARD</b>                                                                                                   |  |
| <b>23-2376849</b>                                                                                                 |  |

|                                                                                                                   |                                                                   |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| <b>(b)</b> Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation |                                                                   |
| <b>WILLIAM BLAIR FUNDS</b>                                                                                        | <b>222 WEST ADAMS STREET<br/>12TH FLOOR<br/>CHICAGO, IL 60606</b> |

---

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

---

AMERICAN FUNDS SERVICE COMPANY

P.O. BOX 6007  
INDIANAPOLIS, IN 46206

---

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

---

WELLS FARGO

94-2948313

---

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

---

DIMENSIONAL FUND ADVISORS

6300 BEE CAVE ROAD  
BUILDING ONE  
AUSTIN, TN 78746

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**(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

---

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**(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

---

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

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**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)

MERCER

13-2834414

| (b)<br>Service Code(s) | (c)<br>Relationship to employer, employee organization, or person known to be a party-in-interest | (d)<br>Enter direct compensation paid by the plan. If none, enter -0-. | (e)<br>Did service provider receive indirect compensation? (sources other than plan or plan sponsor) | (f)<br>Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures? | (g)<br>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)<br>Did the service provider give you a formula instead of an amount or estimated amount? |
|------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 16 50                  | NONE                                                                                              | 61570                                                                  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                                                       |                                                                                                                                                                                 | Yes <input type="checkbox"/> No <input type="checkbox"/>                                     |

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

JP MORGAN CHASE AND CO.

270 PARK AVE.  
NEW YORK, NY 10017

| (b)<br>Service Code(s) | (c)<br>Relationship to employer, employee organization, or person known to be a party-in-interest | (d)<br>Enter direct compensation paid by the plan. If none, enter -0-. | (e)<br>Did service provider receive indirect compensation? (sources other than plan or plan sponsor) | (f)<br>Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures? | (g)<br>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)<br>Did the service provider give you a formula instead of an amount or estimated amount? |
|------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 17 28 50<br>51         | NONE                                                                                              | 17224                                                                  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                                                       |                                                                                                                                                                                 | Yes <input type="checkbox"/> No <input type="checkbox"/>                                     |

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

BDO USA LLP

13-5381590

| (b)<br>Service Code(s) | (c)<br>Relationship to employer, employee organization, or person known to be a party-in-interest | (d)<br>Enter direct compensation paid by the plan. If none, enter -0-. | (e)<br>Did service provider receive indirect compensation? (sources other than plan or plan sponsor) | (f)<br>Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures? | (g)<br>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)<br>Did the service provider give you a formula instead of an amount or estimated amount? |
|------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 10 50                  | NONE                                                                                              | 10173                                                                  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                  | Yes <input type="checkbox"/> No <input type="checkbox"/>                                                                       |                                                                                                                                                                                 | Yes <input type="checkbox"/> No <input type="checkbox"/>                                     |

**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)<br>Service Code(s) | (c)<br>Relationship to employer, employee organization, or person known to be a party-in-interest | (d)<br>Enter direct compensation paid by the plan. If none, enter -0-. | (e)<br>Did service provider receive indirect compensation? (sources other than plan or plan sponsor) | (f)<br>Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures? | (g)<br>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)<br>Did the service provider give you a formula instead of an amount or estimated amount? |
|------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                        |                                                                                                   |                                                                        | Yes <input type="checkbox"/> No <input type="checkbox"/>                                             | Yes <input type="checkbox"/> No <input type="checkbox"/>                                                                       |                                                                                                                                                                                 | Yes <input type="checkbox"/> No <input type="checkbox"/>                                     |

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

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

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

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

**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<br>(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<br>(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<br>(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)

|                    |                     |
|--------------------|---------------------|
| <b>a</b> Name:     | <b>b</b> EIN:       |
| <b>c</b> Position: |                     |
| <b>d</b> Address:  | <b>e</b> Telephone: |
|                    |                     |

Explanation:

|                    |                     |
|--------------------|---------------------|
| <b>a</b> Name:     | <b>b</b> EIN:       |
| <b>c</b> Position: |                     |
| <b>d</b> Address:  | <b>e</b> Telephone: |
|                    |                     |

Explanation:

|                    |                     |
|--------------------|---------------------|
| <b>a</b> Name:     | <b>b</b> EIN:       |
| <b>c</b> Position: |                     |
| <b>d</b> Address:  | <b>e</b> Telephone: |
|                    |                     |

Explanation:

|                    |                     |
|--------------------|---------------------|
| <b>a</b> Name:     | <b>b</b> EIN:       |
| <b>c</b> Position: |                     |
| <b>d</b> Address:  | <b>e</b> Telephone: |
|                    |                     |

Explanation:

|                    |                     |
|--------------------|---------------------|
| <b>a</b> Name:     | <b>b</b> EIN:       |
| <b>c</b> Position: |                     |
| <b>d</b> Address:  | <b>e</b> Telephone: |
|                    |                     |

Explanation:



**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

|                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                              |                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>SCHEDULE H</b><br><b>(Form 5500)</b><br><br><small>Department of the Treasury<br/>Internal Revenue Service</small><br><br><small>Department of Labor<br/>Employee Benefits Security Administration</small><br><br><small>Pension Benefit Guaranty Corporation</small> | <b>Financial Information</b><br><br>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).<br><br><b>► File as an attachment to Form 5500.</b> | <small>OMB No. 1210-0110</small><br><br><b>2019</b><br><br><b>This Form is Open to Public Inspection</b> |
| For calendar plan year 2019 or fiscal plan year beginning <b>01/01/2019</b> and ending <b>12/31/2019</b>                                                                                                                                                                 |                                                                                                                                                                                                                                                                              |                                                                                                          |
| <b>A</b> Name of plan<br><b>ALERIS RETIREMENT PLAN FOR BARGAINED EMPLOYEES</b>                                                                                                                                                                                           |                                                                                                                                                                                                                                                                              | <b>B</b> Three-digit plan number (PN) <b>►</b> <b>003</b>                                                |
| <b>C</b> Plan sponsor's name as shown on line 2a of Form 5500<br><b>ALERIS ROLLED PRODUCTS, INC.</b>                                                                                                                                                                     |                                                                                                                                                                                                                                                                              | <b>D</b> Employer Identification Number (EIN)<br><b>27-1539745</b>                                       |

| Part I Asset and Liability Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                       |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------|-----------------|
| <b>1</b> 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. <b>Round off amounts to the nearest dollar.</b> 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 |
| <b>a</b> Total noninterest-bearing cash .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>1a</b>       |                       |                 |
| <b>b</b> Receivables (less allowance for doubtful accounts):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                       |                 |
| <b>(1)</b> Employer contributions.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>1b(1)</b>    | 49000                 | 119000          |
| <b>(2)</b> Participant contributions.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>1b(2)</b>    |                       |                 |
| <b>(3)</b> Other.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>1b(3)</b>    |                       |                 |
| <b>c</b> General investments:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |                       |                 |
| <b>(1)</b> Interest-bearing cash (include money market accounts & certificates of deposit).....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>1c(1)</b>    | 25618                 | 61273           |
| <b>(2)</b> U.S. Government securities .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>1c(2)</b>    |                       |                 |
| <b>(3)</b> Corporate debt instruments (other than employer securities):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |                       |                 |
| <b>(A)</b> Preferred .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>1c(3)(A)</b> |                       |                 |
| <b>(B)</b> All other.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>1c(3)(B)</b> |                       |                 |
| <b>(4)</b> Corporate stocks (other than employer securities):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |                       |                 |
| <b>(A)</b> Preferred .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>1c(4)(A)</b> |                       |                 |
| <b>(B)</b> Common.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>1c(4)(B)</b> |                       |                 |
| <b>(5)</b> Partnership/joint venture interests .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>1c(5)</b>    | 1961922               | 2259547         |
| <b>(6)</b> Real estate (other than employer real property).....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>1c(6)</b>    |                       |                 |
| <b>(7)</b> Loans (other than to participants) .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>1c(7)</b>    |                       |                 |
| <b>(8)</b> Participant loans.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>1c(8)</b>    |                       |                 |
| <b>(9)</b> Value of interest in common/collective trusts .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>1c(9)</b>    | 481189                | 369004          |
| <b>(10)</b> Value of interest in pooled separate accounts .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>1c(10)</b>   |                       |                 |
| <b>(11)</b> Value of interest in master trust investment accounts .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>1c(11)</b>   |                       |                 |
| <b>(12)</b> Value of interest in 103-12 investment entities.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>1c(12)</b>   |                       |                 |
| <b>(13)</b> Value of interest in registered investment companies (e.g., mutual funds).....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>1c(13)</b>   | 1157237               | 1478963         |
| <b>(14)</b> Value of funds held in insurance company general account (unallocated contracts).....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>1c(14)</b>   |                       |                 |
| <b>(15)</b> Other.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>1c(15)</b>   |                       |                 |

| <b>1d</b> Employer-related investments:                              |              | (a) Beginning of Year | (b) End of Year |
|----------------------------------------------------------------------|--------------|-----------------------|-----------------|
| (1) Employer securities .....                                        | <b>1d(1)</b> |                       |                 |
| (2) Employer real property .....                                     | <b>1d(2)</b> |                       |                 |
| <b>e</b> Buildings and other property used in plan operation .....   | <b>1e</b>    |                       |                 |
| <b>f</b> Total assets (add all amounts in lines 1a through 1e) ..... | <b>1f</b>    | 3674966               | 4287787         |

**Liabilities**

|                                                                           |           |   |   |
|---------------------------------------------------------------------------|-----------|---|---|
| <b>g</b> Benefit claims payable .....                                     | <b>1g</b> |   |   |
| <b>h</b> Operating payables .....                                         | <b>1h</b> |   |   |
| <b>i</b> Acquisition indebtedness .....                                   | <b>1i</b> |   |   |
| <b>j</b> Other liabilities .....                                          | <b>1j</b> |   |   |
| <b>k</b> Total liabilities (add all amounts in lines 1g through 1j) ..... | <b>1k</b> | 0 | 0 |

**Net Assets**

|                                                           |           |         |         |
|-----------------------------------------------------------|-----------|---------|---------|
| <b>l</b> Net assets (subtract line 1k from line 1f) ..... | <b>1l</b> | 3674966 | 4287787 |
|-----------------------------------------------------------|-----------|---------|---------|

**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 |
|------------------------------------------------------------------------------------------------------------|-----------------|------------|-----------|
| <b>a Contributions:</b>                                                                                    |                 |            |           |
| (1) Received or receivable in cash from: <b>(A)</b> Employers .....                                        | <b>2a(1)(A)</b> | 221000     |           |
| <b>(B)</b> Participants .....                                                                              | <b>2a(1)(B)</b> |            |           |
| <b>(C)</b> Others (including rollovers) .....                                                              | <b>2a(1)(C)</b> |            |           |
| (2) Noncash contributions .....                                                                            | <b>2a(2)</b>    |            |           |
| (3) Total contributions. Add lines <b>2a(1)(A)</b> , <b>(B)</b> , <b>(C)</b> , and line <b>2a(2)</b> ..... | <b>2a(3)</b>    |            | 221000    |
| <b>b Earnings on investments:</b>                                                                          |                 |            |           |
| (1) Interest:                                                                                              |                 |            |           |
| <b>(A)</b> Interest-bearing cash (including money market accounts and certificates of deposit) .....       | <b>2b(1)(A)</b> | 195        |           |
| <b>(B)</b> U.S. Government securities .....                                                                | <b>2b(1)(B)</b> |            |           |
| <b>(C)</b> Corporate debt instruments .....                                                                | <b>2b(1)(C)</b> |            |           |
| <b>(D)</b> Loans (other than to participants) .....                                                        | <b>2b(1)(D)</b> |            |           |
| <b>(E)</b> Participant loans .....                                                                         | <b>2b(1)(E)</b> |            |           |
| <b>(F)</b> Other .....                                                                                     | <b>2b(1)(F)</b> |            |           |
| (G) Total interest. Add lines <b>2b(1)(A)</b> through <b>(F)</b> .....                                     | <b>2b(1)(G)</b> |            | 195       |
| (2) Dividends: <b>(A)</b> Preferred stock .....                                                            | <b>2b(2)(A)</b> |            |           |
| <b>(B)</b> Common stock .....                                                                              | <b>2b(2)(B)</b> |            |           |
| <b>(C)</b> Registered investment company shares (e.g. mutual funds) .....                                  | <b>2b(2)(C)</b> | 24333      |           |
| (D) Total dividends. Add lines <b>2b(2)(A)</b> , <b>(B)</b> , and <b>(C)</b> .....                         | <b>2b(2)(D)</b> |            | 24333     |
| (3) Rents .....                                                                                            | <b>2b(3)</b>    |            |           |
| (4) Net gain (loss) on sale of assets: <b>(A)</b> Aggregate proceeds .....                                 | <b>2b(4)(A)</b> | 786070     |           |
| <b>(B)</b> Aggregate carrying amount (see instructions) .....                                              | <b>2b(4)(B)</b> | 796642     |           |
| (C) Subtract line <b>2b(4)(B)</b> from line <b>2b(4)(A)</b> and enter result .....                         | <b>2b(4)(C)</b> |            | -10572    |
| (5) Unrealized appreciation (depreciation) of assets: <b>(A)</b> Real estate .....                         | <b>2b(5)(A)</b> |            |           |
| <b>(B)</b> Other .....                                                                                     | <b>2b(5)(B)</b> | 403863     |           |
| (C) Total unrealized appreciation of assets. Add lines <b>2b(5)(A)</b> and <b>(B)</b> .....                | <b>2b(5)(C)</b> |            | 403863    |

|                                                                                                 |        | (a) Amount | (b) Total |
|-------------------------------------------------------------------------------------------------|--------|------------|-----------|
| (6) Net investment gain (loss) from common/collective trusts .....                              | 2b(6)  |            | 17604     |
| (7) Net investment gain (loss) from pooled separate accounts .....                              | 2b(7)  |            |           |
| (8) Net investment gain (loss) from master trust investment accounts .....                      | 2b(8)  |            |           |
| (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) |            | 294894    |
| c Other income .....                                                                            | 2c     |            | 71        |
| d Total income. Add all <b>income</b> amounts in column (b) and enter total .....               | 2d     |            | 951388    |

**Expenses**

|                                                                                      |       |        |        |
|--------------------------------------------------------------------------------------|-------|--------|--------|
| e Benefit payment and payments to provide benefits:                                  |       |        |        |
| (1) Directly to participants or beneficiaries, including direct rollovers .....      | 2e(1) | 183631 |        |
| (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) |        | 183631 |
| 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) | 86154  |        |
| (2) Contract administrator fees .....                                                | 2i(2) |        |        |
| (3) Investment advisory and management fees .....                                    | 2i(3) | 7955   |        |
| (4) Other .....                                                                      | 2i(4) | 60827  |        |
| (5) Total administrative expenses. Add lines 2i(1) through (4) .....                 | 2i(5) |        | 154936 |
| j Total expenses. Add all <b>expense</b> amounts in column (b) and enter total ..... | 2j    |        | 338567 |

**Net Income and Reconciliation**

|                                                          |       |  |        |
|----------------------------------------------------------|-------|--|--------|
| k Net income (loss). Subtract line 2j from line 2d ..... | 2k    |  | 612821 |
| 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: 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:

**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.) .....

**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.) .....

|    | Yes | No | Amount |
|----|-----|----|--------|
| 4a |     | X  |        |
| 4b |     | X  |        |

|                                                                                                                                                                                                                         | Yes | No | Amount   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----------|
| <b>c</b> 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.)                                          |     | X  |          |
| <b>4c</b>                                                                                                                                                                                                               |     | X  |          |
| <b>d</b> 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.)                               |     | X  |          |
| <b>4d</b>                                                                                                                                                                                                               |     | X  |          |
| <b>e</b> Was this plan covered by a fidelity bond?                                                                                                                                                                      | X   |    | 10000000 |
| <b>4e</b>                                                                                                                                                                                                               | X   |    | 10000000 |
| <b>f</b> Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?                                                                                       |     | X  |          |
| <b>4f</b>                                                                                                                                                                                                               |     | X  |          |
| <b>g</b> 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?                                                    |     | X  |          |
| <b>4g</b>                                                                                                                                                                                                               |     | X  |          |
| <b>h</b> 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?                                          |     | X  |          |
| <b>4h</b>                                                                                                                                                                                                               |     | X  |          |
| <b>i</b> Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)                                                                | X   |    |          |
| <b>4i</b>                                                                                                                                                                                                               | X   |    |          |
| <b>j</b> 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.) | X   |    |          |
| <b>4j</b>                                                                                                                                                                                                               | X   |    |          |
| <b>k</b> Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?                                                           |     | X  |          |
| <b>4k</b>                                                                                                                                                                                                               |     | X  |          |
| <b>l</b> Has the plan failed to provide any benefit when due under the plan?                                                                                                                                            |     | X  |          |
| <b>4l</b>                                                                                                                                                                                                               |     | X  |          |
| <b>m</b> If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)                                                                                                  |     |    |          |
| <b>4m</b>                                                                                                                                                                                                               |     |    |          |
| <b>n</b> 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.                                     |     |    |          |
| <b>4n</b>                                                                                                                                                                                                               |     |    |          |

**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 4236095. (See instructions.)

|                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                  |                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <div>SCHEDULE R<br/>(Form 5500)<br/><br/>Department of the Treasury<br/>Internal Revenue Service<br/><br/>Department of Labor<br/>Employee Benefits Security Administration<br/><br/>Pension Benefit Guaranty Corporation</div>                                                                                                                                 | <div>Retirement Plan Information</div> <div>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).</div> <div>▶ File as an attachment to Form 5500.</div> | <div>OMB No. 1210-0110</div> <div>2019</div> <div>This Form is Open to Public Inspection.</div> |
| For calendar plan year 2019 or fiscal plan year beginning 01/01/2019 and ending 12/31/2019                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                  |                                                                                                 |
| A Name of plan<br>ALERIS RETIREMENT PLAN FOR BARGAINED EMPLOYEES                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                  | B Three-digit plan number (PN) ▶ 003                                                            |
| C Plan sponsor's name as shown on line 2a of Form 5500<br>ALERIS ROLLED PRODUCTS, INC.                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                  | D Employer Identification Number (EIN)<br>27-1539745                                            |
| 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):<br><br>EIN(s): 41-2657133                                                                                                            |                                                                                                                                                                                                                                                                                                  |                                                                                                 |
| Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                  |                                                                                                 |
| 3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                  | 3 0                                                                                             |
| Part II                                                                                                                                                                                                                                                                                                                                                         | Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)                                                                                                                           |                                                                                                 |
| 4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A<br>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<br>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? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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. <input type="checkbox"/> Increase <input type="checkbox"/> Decrease <input type="checkbox"/> Both <input checked="" type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                  |                                                                                                 |
| 11 a Does the ESOP hold any preferred stock? <input type="checkbox"/> Yes <input type="checkbox"/> 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.) <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                        |                                                                                                                                                                                                                                                                                                  |                                                                                                 |
| 12 Does the ESOP hold any stock that is not readily tradable on an established securities market? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                  |                                                                                                 |
| For Paperwork Reduction Act Notice, see the Instructions for Form 5500.                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                  |                                                                                                 |
| Schedule R (Form 5500) 2019 v. 190130                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                  |                                                                                                 |

**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): \_\_\_\_\_

|           |                                                                                                                                                                                                                                                      |            |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>14</b> | Enter the number of participants on whose behalf no contributions were made by an employer as an employer of the participant for:                                                                                                                    |            |
| <b>a</b>  | The current year .....                                                                                                                                                                                                                               | <b>14a</b> |
| <b>b</b>  | The plan year immediately preceding the current plan year .....                                                                                                                                                                                      | <b>14b</b> |
| <b>c</b>  | The second preceding plan year .....                                                                                                                                                                                                                 | <b>14c</b> |
| <b>15</b> | 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:                                                                         |            |
| <b>a</b>  | The corresponding number for the plan year immediately preceding the current plan year .....                                                                                                                                                         | <b>15a</b> |
| <b>b</b>  | The corresponding number for the second preceding plan year .....                                                                                                                                                                                    | <b>15b</b> |
| <b>16</b> | Information with respect to any employers who withdrew from the plan during the preceding plan year:                                                                                                                                                 |            |
| <b>a</b>  | Enter the number of employers who withdrew during the preceding plan year .....                                                                                                                                                                      | <b>16a</b> |
| <b>b</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 .....                                                                                        | <b>16b</b> |
| <b>17</b> | 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. .... <input type="checkbox"/> |            |

**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): \_\_\_\_\_

**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 \_\_\_\_\_



# **Aleris Retirement Plan for Bargained Employees**

**Financial Statements  
and Supplemental Schedules**  
Years Ended December 31, 2019 and 2018

## **Aleris Retirement Plan for Bargained Employees**

### **Index to Financial Statements and Supplemental Schedules**

| <b><u>Index</u></b>                                                                                               | <b><u>Page</u></b> |
|-------------------------------------------------------------------------------------------------------------------|--------------------|
| Independent Auditor's Report .....                                                                                | 2                  |
| Statements of Net Assets Available for Benefits as of December 31, 2019 and 2018 .....                            | 4                  |
| Statements of Changes in Net Assets Available for Benefits for the Years Ended<br>December 31, 2019 and 2018..... | 5                  |
| Notes to Financial Statements .....                                                                               | 6                  |
| Supplemental Schedules:                                                                                           |                    |
| Schedule H, Line 4i – Schedule of Assets (Held at End of Year) as of December 31, 2019.....                       | 15                 |
| Schedule H, Line 4j – Schedule of Reportable Transactions for the Year Ended December 31, 2019 .....              | 16                 |



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## **Independent Auditor's Report**

To the Benefits Committee  
Aleris Retirement Plan for Bargained Employees  
Beachwood, Ohio

We have audited the accompanying financial statements of the Aleris Retirement Plan for Bargained Employees (the Plan), which comprise the statements of net assets available for benefits as of December 31, 2019 and 2018, and the related statements of changes in net assets available for benefits for the years 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; 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 our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, information regarding the Plan's net assets available for benefits as of December 31, 2019 and changes therein for the year then ended, and its financial status as of December 31, 2018 and changes therein for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### ***Report on Supplementary Information***

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The supplemental Schedule of Assets (Held at End of Year) as of December 31, 2019 and the supplemental Schedule of Reportable Transactions for the Year Ended December 31, 2019 are presented for the purpose of additional analysis and are not a required part of the financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. Such information is the responsibility of the Plan's management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

BDO USA, LLP

Cleveland, Ohio  
October 13, 2020

**Aleris Retirement Plan for Bargained Employees**

**Statements of Net Assets Available for Benefits**

|                                                                   | <b>December 31,</b> |                     |
|-------------------------------------------------------------------|---------------------|---------------------|
|                                                                   | <b>2019</b>         | <b>2018</b>         |
| <b>Assets</b>                                                     |                     |                     |
| Investments, at fair value as determined by quoted market prices: |                     |                     |
| Interest-bearing cash                                             | \$ 61,273           | \$ 25,618           |
| Mutual funds                                                      | 1,478,963           | 1,157,237           |
| Investments, at fair value:                                       |                     |                     |
| Commingled funds                                                  | 369,004             | 481,189             |
| Limited partnership interests                                     | 2,259,547           | 1,961,922           |
| Total investments                                                 | 4,168,787           | 3,625,966           |
| Employer contributions receivable                                 | 119,000             | 49,000              |
| Net assets available for benefits                                 | <u>\$ 4,287,787</u> | <u>\$ 3,674,966</u> |

*See accompanying notes to financial statements.*

**Aleris Retirement Plan for Bargained Employees**  
**Statements of Changes in Net Assets Available for Benefits**

|                                                              | <b>For the Year Ended December 31,</b> |                            |
|--------------------------------------------------------------|----------------------------------------|----------------------------|
|                                                              | <b>2019</b>                            | <b>2018</b>                |
| <b>Additions:</b>                                            |                                        |                            |
| <b>Investment income:</b>                                    |                                        |                            |
| Net appreciation (depreciation) in fair value of investments | \$ 705,788                             | \$ (252,504)               |
| Interest, dividends, and other                               | 24,600                                 | 22,564                     |
|                                                              | <u>730,388</u>                         | <u>(229,940)</u>           |
| <b>Employer contributions</b>                                | 221,000                                | 139,000                    |
| <b>Deductions:</b>                                           |                                        |                            |
| Benefits paid to participants                                | 183,631                                | 176,754                    |
| Administrative expenses                                      | 154,936                                | 147,809                    |
|                                                              | <u>338,567</u>                         | <u>324,563</u>             |
| Net increase (decrease)                                      | 612,821                                | (415,503)                  |
| Net assets available for benefits:                           |                                        |                            |
| Beginning of year                                            | <u>3,674,966</u>                       | <u>4,090,469</u>           |
| End of year                                                  | <u><u>\$ 4,287,787</u></u>             | <u><u>\$ 3,674,966</u></u> |

*See accompanying notes to financial statements.*

## **Aleris Retirement Plan for Bargained Employees**

### **Notes to Financial Statements**

**December 31, 2019 and 2018**

#### **1. Description of the Plan**

The following description of the Aleris Retirement Plan for Bargained Employees (the “Plan”) is provided for general information only. Complete information regarding the Plan’s provisions may be found in the Plan document, which is available to all participants upon request.

##### **General**

The Plan is a noncontributory defined benefit plan that provides pension, disability and death benefits to certain collectively-bargained employees of Aleris Rolled Products, Inc. (the “Plan Sponsor”), a subsidiary of Aleris International, Inc. (the “Company”). The Plan is designed to conform to the provisions of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”).

On April 14, 2020, Aleris Corporation, the Company’s parent, finalized an agreement for Aleris Corporation to be acquired by Novelis Inc., a subsidiary of Hindalco Industries Limited (the “Transaction”). Plan management is currently evaluating the impact the Transaction and related Divestiture will have on the Plan.

Effective January 1, 2008 and February 1, 2008, the Plan was amended such that participants employed at the Richmond, Virginia plant and the Ashville, Ohio plant, respectively, will no longer earn additional benefit credits, any increase in accrued benefits, or additional credited service, as defined in the Plan. However, hours of service shall continue to accrue for the purpose of determining years of vesting under the Plan.

Information about the Plan, the vesting and benefit provisions and the Pension Benefit Guaranty Corporation’s (“PBGC”) benefit guarantee is contained in the Plan’s *Summary Plan Description*. Copies of the *Summary Plan Description* are available from the Company’s employee benefits department.

##### **Plan Administration**

Overall responsibility for administering the Plan rests with the Company’s Benefits Committee, which is appointed by the Board of Directors of the Company. The Company’s Benefits Committee has appointed Wells Fargo Bank, N.A. as the trustee of the Plan (the “Trustee”). The Trustee is responsible for management and control of the Plan’s assets.

##### **Eligibility**

The plan provides benefits to eligible employees of Aleris Rolled Products, Inc. who are employed at either the Ashville, Ohio plant or the Richmond, Virginia plant. Effective January 1, 2008, no hourly bargaining class employee employed at the Richmond, Virginia plant shall become an eligible employee. Effective February 1, 2008, no hourly bargaining class employee employed at the Ashville, Ohio plant shall become an eligible employee.

##### **Funding Policy**

The Company has agreed to voluntarily contribute such amounts as are necessary to provide assets sufficient to meet the benefits to be paid to Plan participants. The Company’s intention is to make contributions in amounts sufficient to fund the Plan’s normal costs on a current basis and any increases in the past service liability due to subsequent amendments to the Plan. The Plan has met the minimum funding requirements of ERISA for 2019 and 2018.

## **Aleris Retirement Plan for Bargained Employees**

### **Notes to Financial Statements (continued)**

#### **Benefit and Vesting Provisions**

The Plan generally provides for normal retirement at age 65. The Plan allows for early retirement with a 0.5% reduction in an employee's accrued benefit for each month that the employee's early retirement date precedes age 65 and age 62 for employees located at the Ashville, Ohio plant and the Richmond, Virginia plant, respectively. If an employee has completed 30 years of vesting service, regardless of age, the reduction percentages do not apply. Employees vest entirely after five years of service.

The Plan provides for payments of retirement, disability and death benefits to participants or their beneficiaries under various payment options, including a monthly retirement benefit, straight-life annuity and joint-survivor annuity. The determination of benefit payments depends primarily on the years of service as outlined in the Plan.

#### **Plan Termination**

The Company reserves the right under the Plan document to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. Upon termination, the net assets of the Plan will be allocated for payment to the participants in an order of priority as prescribed by ERISA and its related regulations and the Plan document.

Whether all participants receive their benefits should the Plan terminate at some future time will be dependent on the sufficiency, at that time, of the Plan's net assets to provide for accumulated plan benefits and may also depend on the financial condition of the Company and the level of benefits guaranteed by the PBGC as well as the priority of those benefits. Some benefits may be fully or partially provided for by the then-existing net assets of the Plan and the PBGC guarantee, while other benefits may not be provided for at all.

## **2. Summary of Significant Accounting Policies**

#### **Basis of Accounting**

The accompanying financial statements of the Plan have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP).

#### **Use of Estimates**

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements. Actual results could differ from those estimates.

#### **Risks and Uncertainties**

The Plan invests in various investment securities. Investment securities are exposed to various risks, such as interest rate, market volatility and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near-term and that such changes could materially affect the amounts reported in the Statements of Net Assets Available for Benefits.

Plan contributions are made and the 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.

## **Aleris Retirement Plan for Bargained Employees**

### **Notes to Financial Statements (continued)**

#### **Investment Valuation and Income Recognition**

The Plan's investments are stated at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 4 for further discussion and disclosures related to fair value measurements.

In conformity with Accounting Standards Codification ("ASC") 820, *Fair Value Measurement*, assets and liabilities measured at fair value are categorized into the following fair value hierarchy:

Level 1 – Fair value is based on unadjusted quoted prices for identical assets or liabilities in an active market that the Plan has the ability to access at the measurement date.

Level 2 – Fair value is based on quoted prices in markets that are not active, quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.

Level 3 – Fair value is based on prices or valuation techniques that require inputs that are both significant to the fair value measurements and unobservable. These inputs reflect management's judgment about the assumptions that a market participant would use in pricing the investment and are based on the best available information, some of which may be internally developed.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded as earned. 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.

#### **Benefit Payments**

Benefits are recorded when paid.

#### **Administrative Expenses**

Administrative expenses are paid by the Plan.

#### **Actuarial Present Value of Accumulated Plan Benefits**

Accumulated plan benefits (see Note 3) represent the actuarial present value of estimated future periodic payments, including lump-sum distributions, that are attributable under the Plan's provisions to services rendered by employees through January 1, 2008 for the Richmond, Virginia plant (February 1, 2008 for the Ashville, Ohio plant). Accumulated plan benefits include benefits expected to be paid to (a) retired or terminated employees or their beneficiaries (b) beneficiaries of deceased employees and (c) present employees or their beneficiaries. Benefits for retired or terminated employees or their beneficiaries and active employees are based on employees' highest job grade worked during the last ten years of credited service and the total number of years of credited service. Benefits payable under all circumstances (retirement, death, disability, and termination of employment) are included, only to the extent they are deemed attributable to employee services rendered through January 1, 2008 for the Richmond, Virginia plant (February 1, 2008 for the Ashville, Ohio plant).

## **Aleris Retirement Plan for Bargained Employees**

### **Notes to Financial Statements (continued)**

#### **Evaluation of Subsequent Events**

Plan management has evaluated subsequent events through October 13, 2020, which is the date the financial statements were available to be issued, and has determined that there were no subsequent events that have occurred through that date that have not already been reflected in the financial statements and / or disclosed in the notes, other than disclosed below.

On January 30, 2020, the World Health Organization ("WHO") announced a global health emergency because of a new strain of coronavirus originating in Wuhan, China and the risks to the international community as the virus spread globally beyond its point of origin. In March 2020, the WHO classified the COVID-19 outbreak as a pandemic, based on the rapid increase in exposure globally.

The full impact of the COVID-19 outbreak continues to evolve as of the date of this report. This pandemic has adversely affected global economic activity and greatly contributed to volatility in financial markets. However, because the values of the Plan's investments have and will fluctuate in response to changing market conditions, the amount of losses that will be recognized in subsequent periods, if any, cannot be determined. The value of the Plan's investments has a direct impact on its funded status. As a result of possible changes to the actuarial assumptions used in determining the present value of accumulated plan benefits, the Plan Sponsor may need to make greater cash contributions to fund the Plan. Based on the Plan's funded percentage, there may be certain benefit limitations imposed. However, the actual impact, if any, on future required contributions, Plan liquidity, and benefit limitations cannot be determined at this time.

On March 27, 2020, President Trump signed into law the "Coronavirus Aid, Relief, and Economic Security (CARES) Act." The CARES Act, among other things, includes several relief provisions available to tax qualified retirement plans and their participants. Plan management has evaluated the relief provisions available to Plan participants under the CARES Act and has implemented the following provisions:

- Special coronavirus distributions up to \$100,000;
- Increased the available loan amount as described in Note 1 to the lesser of \$100,000 or 100% of the participant's vested account balance;
- Extended the period for loan repayments, if applicable, up to one year.

Although Plan management cannot estimate the length or gravity of the impact of the COVID-19 Outbreak at this time, if the pandemic continues, it may have an adverse effect on the Plan.

#### **3. Actuarial Present Value of Accumulated Plan Benefits**

Mercer (U.S.) Inc., the Plan's actuary, estimated the actuarial present value of accumulated plan benefits, which is the amount that resulted from applying actuarial assumptions to adjust the accumulated plan benefits earned by the participants to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements for death, disability, withdrawal or retirement) between the valuation date and the expected date of payment.

## Aleris Retirement Plan for Bargained Employees

### Notes to Financial Statements (continued)

The actuarial present value of accumulated plan benefits is as follows:

|                                                            | January 1,          |                     |
|------------------------------------------------------------|---------------------|---------------------|
|                                                            | 2019                | 2018                |
| Actuarial present value of accumulated plan benefits:      |                     |                     |
| Vested benefits:                                           |                     |                     |
| Participants currently receiving benefits                  | \$ 1,762,961        | \$ 1,634,059        |
| Other participants                                         | 1,569,474           | 1,468,396           |
| Total vested benefits                                      | 3,332,435           | 3,102,455           |
| Non-vested benefits                                        | 96,474              | 108,491             |
| Total actuarial present value of accumulated plan benefits | <u>\$ 3,428,909</u> | <u>\$ 3,210,946</u> |

The changes in accumulated plan benefits as of January 1, 2019, are as follows:

|                                                                           |                     |
|---------------------------------------------------------------------------|---------------------|
| Actuarial present value of accumulated plan benefits at beginning of year | \$ 3,210,946        |
| Increase (decrease) during the year attributed to:                        |                     |
| Benefits accumulated and (gains)/losses                                   | 41,752              |
| Increase for interest due to the decrease in the discount period          | 236,756             |
| Benefits paid                                                             | (176,754)           |
| Change in actuarial assumptions                                           | 116,209             |
| Net increase                                                              | <u>217,963</u>      |
| Actuarial present value of accumulated plan benefits at end of year       | <u>\$ 3,428,909</u> |

Significant assumptions underlying the actuarial valuation include:

Assumed rate of return on investments 7.25%

Mortality basis Adjusted RP-2014, which backs out the post-2006 mortality improvements, blue collar, separate annuitant & non-annuitant, sex distinct base tables, projected generationally using the MP-2018 projection scale

(Adjusted RP-2014, which backs out the post 2006 mortality improvements, blue collar, separate annuitant & non-annuitant, sex distinct base tables, projected generationally using the MP-2017 projection scale)

Normal retirement Age 65 or thirty years of vesting service

The 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. The actuary estimated the accumulated plan benefits as of January 1, 2019.

#### 4. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities

## Aleris Retirement Plan for Bargained Employees

### Notes to Financial Statements (continued)

(Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy in ASC 820 are described in Note 2.

The level in the fair value hierarchy within which the fair value measurement is classified is determined based on the lowest level input that is significant to the fair value measure in its entirety. Following is a description of the valuation techniques and inputs used for each major class of assets measured at fair value.

**Interest-bearing cash:** Valued at carrying value (which approximates fair value due to the short-term nature of the asset).

**Registered investment companies (Mutual funds):** Valued at quoted prices from an active market which represents the net asset value (“NAV”) of shares held by the Plan at year-end.

**Commingled funds:** Include pooled separate accounts, common and collective funds. Commingled private funds include multiple kinds of assets from several accounts combined to mitigate risk through investment diversification. Pooled separate accounts are valued at the NAV of units held by the Plan, which is determined by dividing the fair value of the fund’s net assets by its units outstanding at the valuation date. Common collective funds are valued based on net asset value per share.

**Limited partnership interests:** Valued at estimated NAV at the valuation date.

While the Plan 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 tables set forth by level, within the fair value hierarchy, the Plan’s assets carried at fair value as of December 31, 2019 and 2018:

| Assets at Fair Value as of December 31, 2019 |                     |                     |             |             |
|----------------------------------------------|---------------------|---------------------|-------------|-------------|
|                                              | Total               | Level 1             | Level 2     | Level 3     |
| Interest-bearing cash                        | \$ 61,273           | \$ 61,273           | \$ -        | \$ -        |
| Mutual funds:                                |                     |                     |             |             |
| Small/Mid U.S. equity                        | 200,505             | 200,505             | -           | -           |
| Large U.S. equity                            | 503,047             | 503,047             | -           | -           |
| International equity                         | 775,411             | 775,411             | -           | -           |
| Total assets in the fair value hierarchy     | 1,540,236           | 1,540,236           | -           | -           |
| Investments measured at NAV (a)              | 2,628,551           |                     |             |             |
| Total assets                                 | <u>\$ 4,168,787</u> | <u>\$ 1,540,236</u> | <u>\$ -</u> | <u>\$ -</u> |

| Assets at Fair Value as of December 31, 2018 |                     |                     |             |             |
|----------------------------------------------|---------------------|---------------------|-------------|-------------|
|                                              | Total               | Level 1             | Level 2     | Level 3     |
| Interest-bearing cash                        | \$ 25,618           | \$ 25,618           | \$ -        | \$ -        |
| Mutual funds:                                |                     |                     |             |             |
| Small/Mid U.S. equity                        | 138,061             | 138,061             | -           | -           |
| Large U.S. equity                            | 376,476             | 376,476             | -           | -           |
| International equity                         | 642,700             | 642,700             | -           | -           |
| Total assets in the fair value hierarchy     | 1,182,855           | 1,182,855           | -           | -           |
| Investments measured at NAV (a)              | 2,443,111           |                     |             |             |
| Total assets                                 | <u>\$ 3,625,966</u> | <u>\$ 1,182,855</u> | <u>\$ -</u> | <u>\$ -</u> |

(a) In accordance with ASC 820-10, certain investments that were measured at NAV (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in the tables are intended to

## Aleris Retirement Plan for Bargained Employees

### Notes to Financial Statements (continued)

permit reconciliation of the fair value hierarchy to the line items presented in the Statements of Net Assets Available for Benefits.

The following table summarizes investments measured at fair value based on NAV per share as of December 31, 2019 and 2018:

|                                                  | <b>As of December 31,</b> |                     |
|--------------------------------------------------|---------------------------|---------------------|
|                                                  | <b>2019</b>               | <b>2018</b>         |
| Commingled funds:                                |                           |                     |
| Core real estate (a)                             | \$ 369,004                | \$ 481,189          |
| Limited partnership interests:                   |                           |                     |
| Core fixed income (b)                            | 1,386,951                 | 1,122,249           |
| Hedged equity (c)                                | 538,113                   | 537,998             |
| Small cap value equity (d)                       | 334,483                   | 301,675             |
| Total assets measured at fair value based on NAV | <u>\$ 2,628,551</u>       | <u>\$ 2,443,111</u> |

The Plan used the practical expedient to measure the fair value of the commingled funds and limited partnership interests at December 31, 2019 and 2018 within the scope of Accounting Standards Update 2009-12, *Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)* based on the investment's NAV.

A description of the significant investment strategies is as follows:

- a) **Core real estate:** Core real estate fund is composed primarily of real estate investments owned through a commingled pension trust fund. The investment objective of the fund is to provide a high, stable income stream with the potential for moderate capital appreciation over the long term. The core real estate fund invests in high-quality stabilized office, retail, residential and industrial assets in primary markets throughout the United States. Management of the core real estate fund has the ability to rebalance and refine the composition of the overall portfolio and remove assets of lesser quality and/or growth prospects, and where appropriate, trade up for asset quality and geographic location. As a result of how the fund is managed and priced, an extended notice period of six months is required for redemption requests. The Plan has the ability to redeem the investment at the NAV (or its equivalent) in the near term.
- b) **Core fixed income:** Core fixed income fund invests primarily in fixed income securities. The investment objective is to seek total return consistent with the preservation of capital by investing in U.S. dollar-denominated fixed income securities, particularly U.S. government, agency, corporate and mortgage-backed issues. Investments may also include highly liquid AAA-rated mortgage paper, investment grade corporate and Yankee securities. Core fixed income is valued based on the Plan's ownership interest in the net asset value of the investment, which is used as a practical expedient to fair value per the underlying investment funds, which are based upon the Plan's own assumptions about the assumptions a market participant would use in pricing the assets and liabilities of the fund. The Plan has the ability to redeem the investment at the NAV (or its equivalent) on the measurement date.
- c) **Hedged equity:** Hedged equity fund is comprised primarily of shares or units in other investment companies or trusts. The fund invests the assets of its portfolios in other private investment funds. The investment objective of the fund is to generate absolute returns while maintaining a moderate level of risk. Its portfolio assets are allocated to the other private investment funds targeting absolute returns throughout the global financial markets with an emphasis on developed markets. In addition to its investments in other private investment funds, the fund may also make short-term investments for liquidity or defensive purposes, including but not limited to, interest-earning money market accounts, government obligations, commercial paper and short-term certificates of deposit. The fund may also maintain positions in a variety of derivative and non-derivative financial instruments in order to manage the various types of risks that are associated with the financial instruments and markets in which it invests. Hedged equity fund is valued based on the Plan's ownership interest in the net asset value of the investment funds, which are based upon the Plan's own

## Aleris Retirement Plan for Bargained Employees

### Notes to Financial Statements (continued)

assumptions about the assumptions a market participant would use in pricing the assets and liabilities of the fund. The fund's investments can only be redeemed on the first business day of each calendar quarter or each calendar month, but only after such redemption request has been made at least 45 days prior to the last business day of each quarter. The Plan has the ability to redeem the investment at the NAV (or its equivalent) in the near term.

- d) **Small cap value equity:** Limited partnership interests invested primarily in equity securities of domestic and international small capitalization companies. Small cap value equity is valued based on the Plan's ownership interest in the net asset value of the investment, which is used as a practical expedient to fair value per the underlying investment funds, which are based upon the Plan's own assumptions about the assumptions a market participant would use in pricing the assets and liabilities of the fund. Redemptions may be made on the last day of any month, subject to approval and certain other limitations. The Plan has the ability to redeem the investment at the NAV (or its equivalent) at the reporting date.

There were no unfunded commitments at December 31, 2019 and 2018 for any of the commingled funds or limited partnership interests.

The Company's Benefits Committee is responsible for determining the Plan's valuation policies and analyzing information provided by the investment Trustee and funds' general managers or partners that is used to determine the fair value of the Plan's investments. The Company's Benefits Committee is comprised of various members of the Company's management (including the Company's Chief Financial Officer, General Counsel and Executive Vice President, and Chief Human Resources Officer) and reports to the Company's Board of Directors. The Company also has established policies and procedures that relate to the approval of all new Level 3 assets in which the Plan is permitted to invest.

#### 5. Investments

Other than the fair values of commingled funds and limited partnership interests and the related interest and net appreciation (depreciation), all investment information for the Plan disclosed in the accompanying financial statements and supplemental schedules, including investments held at December 31, 2019 and 2018, and net appreciation (depreciation) in fair value of investments and interest and dividends for the years ended December 31, 2019 and 2018, was obtained or derived from information provided to the plan administrator and certified as complete and accurate by the Trustee.

The following investment information was not certified by the Trustee:

|                                                      | December 31, |              |
|------------------------------------------------------|--------------|--------------|
|                                                      | 2019         | 2018         |
| IR&M Long Government Credit Fund LLC                 | \$ 1,386,951 | \$ 1,122,249 |
| Strategic Property Trust Fund of JPMC                | 369,004      | 481,189      |
| Frontier Small Cap Value Fund, L.P.                  | 334,483      | 301,675      |
| Neuberger Berman U.S. Equity Index Putwrite Fund LLC | 538,113      | 537,998      |

## Aleris Retirement Plan for Bargained Employees

### Notes to Financial Statements (continued)

|                                                      | For the Year Ended<br>December 31, |             |
|------------------------------------------------------|------------------------------------|-------------|
|                                                      | 2019                               | 2018        |
| Net appreciation (depreciation) in fair value of:    |                                    |             |
| IR&M Long Government Credit Fund LLC                 | \$ 225,616                         | \$ (40,965) |
| Strategic Property Trust Fund of JPMC                | 15,576                             | 5,540       |
| Frontier Small Cap Value Fund, L.P.                  | 107,958                            | (16,431)    |
| Neuberger Berman U.S. Equity Index Putwrite Fund LLC | 70,289                             | (37,002)    |

#### 6. Transactions with Parties-in-Interest

Fees paid during the year for services rendered by parties-in-interest were based on customary and reasonable rates for such services. Certain of the Plan's investments are managed by the Trustee. These transactions qualify as party-in-interest transactions; however, they are exempt from the prohibited transactions rules under ERISA.

#### 7. Tax Status

The Plan received a determination letter from the Internal Revenue Service (the "IRS") dated December 10, 2011, stating that the Plan is qualified under Section 401(a) of the Internal Revenue Code (the "Code") and, therefore, the related trust is exempt from taxation. Subsequent to this determination by the IRS, the Plan was amended. Once qualified, the Plan is required to operate in conformity with the Code to maintain its qualification. The plan administrator and the Plan's tax counsel believe the Plan is being operated in compliance with the applicable requirements of the Code and, therefore, believe that the Plan, as amended, is qualified and the related trust is tax-exempt.

U.S. GAAP requires Plan management to evaluate uncertain tax positions taken by the Plan. The financial statement effects of a tax position are recognized when the position is more likely than not, based on the technical merits, to not be sustained upon examination by the IRS. The plan administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2019 and 2018, there are no uncertain tax positions taken or expected to be taken. The Plan has recognized no interest or penalties related to uncertain tax positions. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

## Schedule SB, line 26 — Schedule of Active Participant Data

| ATTAINED<br>AGE | YEARS OF CREDITED SERVICE |       |       |            |            |            |            |            |            |            |       |
|-----------------|---------------------------|-------|-------|------------|------------|------------|------------|------------|------------|------------|-------|
|                 | UNDER<br>1                | 1 – 4 | 5 – 9 | 10 –<br>14 | 15 –<br>19 | 20 –<br>24 | 25 –<br>29 | 30 –<br>34 | 35 –<br>39 | 40 &<br>UP | TOTAL |
| Under 25        |                           |       |       |            |            |            |            |            |            |            |       |
| 25–29           |                           |       |       |            |            |            |            |            |            |            |       |
| 30–34           |                           |       |       |            |            |            |            |            |            |            |       |
| 35–39           |                           |       |       |            |            |            |            |            |            |            |       |
| 40–44           |                           |       | 3     | 1          |            |            |            |            |            |            | 4     |
| 45–49           |                           |       | 2     | 1          |            |            |            |            |            |            | 3     |
| 50–54           |                           |       | 4     |            |            | 1          |            |            |            |            | 5     |
| 55–59           |                           |       | 1     | 4          | 2          | 3          |            |            |            |            | 10    |
| 60–64           |                           |       | 1     | 3          |            |            | 1          | 2          | 1          |            | 8     |
| 65–69           |                           |       | 2     |            |            |            |            | 1          | 1          |            | 4     |
| 70 & up         |                           |       |       |            |            |            |            |            |            |            |       |
| Total           |                           |       | 13    | 9          | 2          | 4          | 1          | 3          | 2          |            | 34    |

In each cell, the top number is the count of active participants for each age/service combination. Credited Service was frozen effective January 1, 2008 for all participants with the exception of Ashville union participants who were frozen effective February 1, 2008.

## Schedule SB, Part V — Statement of Actuarial Assumptions/Methods

## ACTUARIAL ASSUMPTIONS

## DISCOUNT RATE SPONSOR ELECTIONS

|                                                                               |                                                                                                                                                                                                                                                                    |                      |  |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--|
| • Segment rates or full yield curve                                           | Segment                                                                                                                                                                                                                                                            |                      |  |
| • Look-back months                                                            | 0                                                                                                                                                                                                                                                                  |                      |  |
|                                                                               | <u>Stabilized</u>                                                                                                                                                                                                                                                  | <u>Nonstabilized</u> |  |
| • First 5 years                                                               | 3.74%                                                                                                                                                                                                                                                              | 2.55%                |  |
| • Next 15 years                                                               | 5.35%                                                                                                                                                                                                                                                              | 3.93%                |  |
| • Over 20 years                                                               | 6.11%                                                                                                                                                                                                                                                              | 4.49%                |  |
| <b>Mortality sponsor elections</b>                                            |                                                                                                                                                                                                                                                                    |                      |  |
| • Healthy participants<br>• Pre-1995 disabilities<br>• Post-1994 disabilities | Section 430(h)(3) prescribed PPA 2019 separate static annuitant and non-annuitant mortality tables. These tables are developed by the IRS, based on the RP-2014 mortality tables backed off to 2006 with mortality improvement based on projections scale MP-2017. |                      |  |
| <b>Other economic assumptions</b>                                             |                                                                                                                                                                                                                                                                    |                      |  |
| • Expected investment return                                                  | 7.75% for year 2017<br>7.10% for year 2018<br>7.05% for year 2019<br>(limited to 3rd segment rate)                                                                                                                                                                 |                      |  |
| • Expenses                                                                    | \$150,000 added to current year normal cost                                                                                                                                                                                                                        |                      |  |

## RATIONALE FOR ECONOMIC ASSUMPTIONS

- **Discount Rate** – As prescribed by IRS.
- **Expected investment return** – The expected rate of return on plan assets is based on a blend of the hypothetical past performance of the plan's target asset mix, adjusted for current market conditions, and the median simulated investment return using capital market assumptions published in Mercer Investment Consulting's Capital Markets Outlook for the plan's target asset mix. The expected return on assets assumption is net of an adjustment for investment expenses assumed to be paid from plan assets.
- **Expenses** – Expenses are based on year-by-year experience for actual administrative expenses paid from plan assets and adjusted for the difference in expected PBGC premium.

*Schedule SB, Part V — Statement of Actuarial Assumptions/Methods*

**DEMOGRAPHIC ASSUMPTIONS**

| • Withdrawal                         | See table of sample rates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                     |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------|--|--------------|------------|--|--|-----------------------------------------------------|-----------------------------------------------------|-------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|----|-----|-----|-----|----|-----|-----|-----|----|-----|-----|-----|----|-----|-----|-----|----|------|------|------|
| • Disability incidence               | See table of sample rates that based on the 1985 Pension Disability Class 3 tables.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                     |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| • Retirement age                     | <table><tr><th rowspan="2">Attained age</th><th colspan="3">Percentage</th></tr><tr><th>Less than 30 years of service for Ashville location</th><th>Less than 30 years of service for Richmond location</th><th>More than 30 years of service</th></tr><tr><td>55</td><td>0%</td><td>0%</td><td>5%</td></tr><tr><td>56</td><td>0%</td><td>0%</td><td>5%</td></tr><tr><td>57</td><td>0%</td><td>0%</td><td>5%</td></tr><tr><td>58</td><td>0%</td><td>0%</td><td>5%</td></tr><tr><td>59</td><td>0%</td><td>0%</td><td>5%</td></tr><tr><td>60</td><td>15%</td><td>15%</td><td>10%</td></tr><tr><td>61</td><td>10%</td><td>10%</td><td>10%</td></tr><tr><td>62</td><td>25%</td><td>40%</td><td>40%</td></tr><tr><td>63</td><td>10%</td><td>10%</td><td>10%</td></tr><tr><td>64</td><td>10%</td><td>10%</td><td>10%</td></tr><tr><td>65</td><td>100%</td><td>100%</td><td>100%</td></tr></table> |                                                     |                               |  | Attained age | Percentage |  |  | Less than 30 years of service for Ashville location | Less than 30 years of service for Richmond location | More than 30 years of service | 55 | 0% | 0% | 5% | 56 | 0% | 0% | 5% | 57 | 0% | 0% | 5% | 58 | 0% | 0% | 5% | 59 | 0% | 0% | 5% | 60 | 15% | 15% | 10% | 61 | 10% | 10% | 10% | 62 | 25% | 40% | 40% | 63 | 10% | 10% | 10% | 64 | 10% | 10% | 10% | 65 | 100% | 100% | 100% |
| Attained age                         | Percentage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                     |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
|                                      | Less than 30 years of service for Ashville location                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Less than 30 years of service for Richmond location | More than 30 years of service |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 55                                   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0%                                                  | 5%                            |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 56                                   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0%                                                  | 5%                            |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 57                                   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0%                                                  | 5%                            |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 58                                   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0%                                                  | 5%                            |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 59                                   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0%                                                  | 5%                            |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 60                                   | 15%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 15%                                                 | 10%                           |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 61                                   | 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10%                                                 | 10%                           |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 62                                   | 25%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 40%                                                 | 40%                           |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 63                                   | 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10%                                                 | 10%                           |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 64                                   | 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10%                                                 | 10%                           |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 65                                   | 100%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 100%                                                | 100%                          |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| • Benefit commencement age for       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                     |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| – Future and current vested deferred | <p><b><u>Richmond participants</u></b><br/>62 with 10 years of service or 65.</p> <p><b><u>Ashville participants</u></b><br/>65</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                     |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| • Spouse assumptions                 | <b><u>Male participants</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b><u>Female participants</u></b>                   |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| – Percentage married                 | 75%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 75%                                                 |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| – Spouse age difference              | 3 years younger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3 years older                                       |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |

*Schedule SB, Part V — Statement of Actuarial Assumptions/Methods*

| <b>Form of payment</b>                            | <b><u>Life Annuity</u></b>         | <b><u>50% J&amp;S w/ PopUp</u></b> |
|---------------------------------------------------|------------------------------------|------------------------------------|
| • Active retirements                              | 25%                                | 75%                                |
| • Future vested deferred                          | 25%                                | 75%                                |
| • Future disabilities                             | 25%                                | 75%                                |
| • Future deaths                                   | 0%                                 | 100% (no pop-up)                   |
| • Current vested deferred                         | 25%                                | 75%                                |
| <b>Unpredictable contingent event assumptions</b> | Likelihood of event is de minimis. |                                    |

*Schedule SB, Part V — Statement of Actuarial Assumptions/Methods***Table of Sample Rates**

| ATTAINED<br>AGE | PERCENTAGE |                      |        |
|-----------------|------------|----------------------|--------|
|                 | WITHDRAWAL | DISABILITY INCIDENCE |        |
|                 |            | MALE                 | FEMALE |
| 20              | 4.86%      | 0.15%                | 0.09%  |
| 25              | 3.90%      | 0.22%                | 0.15%  |
| 30              | 3.10%      | 0.31%                | 0.25%  |
| 35              | 2.42%      | 0.43%                | 0.39%  |
| 40              | 1.88%      | 0.60%                | 0.55%  |
| 45              | 1.46%      | 0.83%                | 0.78%  |
| 50              | 1.12%      | 1.22%                | 1.20%  |
| 55              | 0.84%      | 2.12%                | 1.96%  |
| 60              | 0.60%      | 3.24%                | 2.33%  |
| 65              | 0.38%      | 4.37%                | 2.72%  |

**RATIONALE FOR DEMOGRAPHIC ASSUMPTIONS**

- **Mortality** – Mortality table prescribed by the IRS.
- **Withdrawal** – The termination table is based on the Society of Actuaries 2003 small plan, age-based turnover table with adjustments. Annual review of the experience has shown that this table produced a reasonable approximation of the rates of termination experienced by the plan.
- **Retirement age** – Retirement rates have been based on the actuary's experience with similar plans, taking into consideration retirement subsidies the plan offers at various ages and the age social insurance programs are first available. Annual review of the plan experience has shown that these rates provide similar results to the actual rates of retirement experienced under the plan.

*Schedule SB, Part V — Statement of Actuarial Assumptions/Methods***ACTUARIAL METHODS****Asset Methods**

The asset valuation method is an average of the adjusted market value for each year during the last two years preceding the valuation date. The adjusted market value is the market value at each determination date adjusted to the valuation date based on actual cash flows and expected interest at the lesser of the expected rate of return and the third segment rate. This amount is adjusted to be no greater than 110% and no less than 90% of the fair market value, as defined in IRC Section 430.

A characteristic of this asset method is that, over time, it is slightly more likely to produce an actuarial value of assets that is less than the market value of assets than an actuarial value that is greater than the market value.

**Participant Methods**

Participants or former participants are included or excluded from the valuation as described below:

- **Participants included:** The plan sponsor provides us with data on all employees as of the valuation date.
- **Participants excluded:** No actuarial liability is included for nonvested participants who terminated prior to the valuation date. For this purpose, participants with a break in service on the valuation date are treated as terminated participants.
- **Insurance contracts:** The plan does not have any insurance contracts.

**Minimum Funding Methods**

The funding target for minimum funding calculations is computed using the traditional unit credit method of funding. The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, the total pension to which each participant is expected to become entitled at retirement is broken down into units, each associated with a year of past or future credited service.

A detailed description of the calculation follows:

- The plan's valuation date is the beginning of the plan year.
- An individual's **funding target** is the present value of future benefits based on credited service and average pay as of the beginning of the plan year, and an individual's **target**

*Schedule SB, Part V — Statement of Actuarial Assumptions/Methods*

**normal cost** is the present value of the benefit expected to accrue in the plan year. If multiple decrements are used, the funding target and the target normal cost for an individual is the sum of the component funding targets and target normal costs associated with the various anticipated separation dates.

- This plan provides benefits that are not a function of a participant's accrued benefit or years of service. This benefit is allocated to funding target based on the ratio of the participant's service at the beginning of the plan year to their service at each decrement age and is allocated to target normal cost based on the proportionate benefit attributable to the increase in the participant's service and compensation during the plan year.
- The plan's **target normal cost** is the sum of the individual target normal costs, and the plan's funding target is the sum of the individual **funding targets** for all participants under the plan.

**Form 5500**Department of the Treasury  
Internal Revenue ServiceDepartment 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

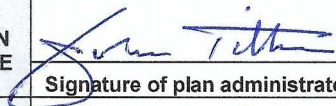
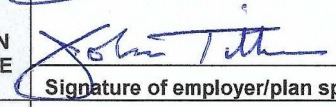
- A** This return/report is for: ☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)  
☒ a single-employer plan ☐ a DFE (specify) \_\_\_\_\_
- B** This return/report is: ☐ the first 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: ☒ Form 5558 ☐ automatic extension ☐ the DFVC program  
☐ special extension (enter description)

**Part II Basic Plan Information—enter all requested information**

|                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1a</b> Name of plan<br>ALERIS RETIREMENT PLAN FOR BARGAINED EMPLOYEES                                                                                                                                                                                                                                                                                          | <b>1b</b> Three-digit plan number (PN) ▶ <u>003</u>                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                   | <b>1c</b> Effective date of plan<br><u>05/23/2003</u>                                                                                                                                                  |
| <b>2a</b> Plan sponsor's name (employer, if for a single-employer plan)<br>Mailing address (include room, apt., suite no. and street, or P.O. Box)<br>City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions)<br>ALERIS ROLLED PRODUCTS, INC.<br><br>25825 SCIENCE PARK DR STE 400<br><br>BEACHWOOD OH 44122-7392 | <b>2b</b> Employer Identification Number (EIN)<br><u>27-1539745</u><br><b>2c</b> Plan Sponsor's telephone number<br><u>216-910-3400</u><br><b>2d</b> Business code (see instructions)<br><u>238300</u> |

**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.

|                                                                                                         |                   |                                                              |
|---------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------|
| <b>SIGN HERE</b><br> | <u>10/12/2020</u> | John Tillman                                                 |
| Signature of plan administrator                                                                         | Date              | Enter name of individual signing as plan administrator       |
| <b>SIGN HERE</b><br> | <u>10/13/2020</u> |                                                              |
| Signature of employer/plan sponsor                                                                      | Date              | Enter name of individual signing as employer or plan sponsor |
| <b>SIGN HERE</b>                                                                                        |                   |                                                              |
| Signature of DFE                                                                                        | Date              | Enter name of individual signing as DFE                      |

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

**Form 5500 (2019)**  
v. 190130

|                                                                                                                                                                                                                                                                                        |                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3a</b> Plan administrator's name and address <input checked="" type="checkbox"/> Same as Plan Sponsor                                                                                                                                                                               | <b>3b</b> Administrator's EIN<br><br><b>3c</b> Administrator's telephone number<br><br><div style="background-color: #cccccc; height: 40px; width: 100%;"></div> |
| <b>4</b> 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:<br><b>a</b> Sponsor's name<br><b>c</b> Plan Name | <b>4b</b> EIN<br><br><b>4d</b> PN                                                                                                                                |
| <b>5</b> Total number of participants at the beginning of the plan year                                                                                                                                                                                                                | <b>5</b> 182                                                                                                                                                     |
| <b>6</b> Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines <b>6a(1)</b> , <b>6a(2)</b> , <b>6b</b> , <b>6c</b> , and <b>6d</b> ).                                                                                       |                                                                                                                                                                  |
| <b>a(1)</b> Total number of active participants at the beginning of the plan year .....                                                                                                                                                                                                | <b>6a(1)</b> 34                                                                                                                                                  |
| <b>a(2)</b> Total number of active participants at the end of the plan year .....                                                                                                                                                                                                      | <b>6a(2)</b> 27                                                                                                                                                  |
| <b>b</b> Retired or separated participants receiving benefits.....                                                                                                                                                                                                                     | <b>6b</b> 82                                                                                                                                                     |
| <b>c</b> Other retired or separated participants entitled to future benefits .....                                                                                                                                                                                                     | <b>6c</b> 56                                                                                                                                                     |
| <b>d</b> Subtotal. Add lines <b>6a(2)</b> , <b>6b</b> , and <b>6c</b> .....                                                                                                                                                                                                            | <b>6d</b> 165                                                                                                                                                    |
| <b>e</b> Deceased participants whose beneficiaries are receiving or are entitled to receive benefits. ....                                                                                                                                                                             | <b>6e</b> 14                                                                                                                                                     |
| <b>f</b> Total. Add lines <b>6d</b> and <b>6e</b> .....                                                                                                                                                                                                                                | <b>6f</b> 179                                                                                                                                                    |
| <b>g</b> Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) .....                                                                                                                                        | <b>6g</b>                                                                                                                                                        |
| <b>h</b> Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested .....                                                                                                                                             | <b>6h</b> 0                                                                                                                                                      |
| <b>7</b> Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item).....                                                                                                                                                    | <b>7</b>                                                                                                                                                         |
| <b>8a</b> If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:<br><b>1B 1I 3D 3H</b>                                                                                                     |                                                                                                                                                                  |
| <b>b</b> If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:                                                                                                                            |                                                                                                                                                                  |

|                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>9a</b> Plan funding arrangement (check all that apply)<br>(1) <input type="checkbox"/> Insurance<br>(2) <input type="checkbox"/> Code section 412(e)(3) insurance contracts<br>(3) <input checked="" type="checkbox"/> Trust<br>(4) <input type="checkbox"/> General assets of the sponsor | <b>9b</b> Plan benefit arrangement (check all that apply)<br>(1) <input type="checkbox"/> Insurance<br>(2) <input type="checkbox"/> Code section 412(e)(3) insurance contracts<br>(3) <input checked="" type="checkbox"/> Trust<br>(4) <input type="checkbox"/> 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) ☒ **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) ☒ **H** (Financial Information)
- (2) ☐ **I** (Financial Information – Small Plan)
- (3) ☐ **A** (Insurance Information)
- (4) ☒ **C** (Service Provider Information)
- (5) ☒ **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 \_\_\_\_\_

**Aleris Retirement Plan for Bargained Employees**  
**EIN # 27-1539745      Plan # 003**  
**Schedule H, Line 4j – Schedule of Reportable Transactions**  
**Year Ended December 31, 2019**

| (a) Identity of Party Involved/<br>(b) Description of Asset               | (c) Purchase<br>Price | (d) Selling<br>Price | (e) Cost of<br>Asset | (f) Current<br>Value of<br>Asset on<br>Transaction<br>Date | (g) Net Gain<br>(Loss) |
|---------------------------------------------------------------------------|-----------------------|----------------------|----------------------|------------------------------------------------------------|------------------------|
| <b>Category 2-Series of transactions</b>                                  |                       |                      |                      |                                                            |                        |
| JP Morgan Strategic Property Fund                                         | \$ -                  | \$ 1,196             | \$ 869               | \$ 1,196                                                   | \$ 327                 |
| JP Morgan Strategic Property Fund                                         | -                     | 125,000              | 91,028               | 125,000                                                    | 33,972                 |
| JP Morgan Strategic Property Fund                                         | -                     | 1,205                | 877                  | 1,205                                                      | 328                    |
| JP Morgan Strategic Property Fund                                         | -                     | 1,212                | 893                  | 1,212                                                      | 319                    |
| IR&M Long Government Credit Fund LLC                                      | 40,000                | -                    | 40,000               | 40,000                                                     | -                      |
| IR&M Long Government Credit Fund LLC                                      | 90,000                | -                    | 90,000               | 90,000                                                     | -                      |
| IR&M Long Government Credit Fund LLC                                      | -                     | 1,175                | 848                  | 1,175                                                      | 327                    |
| IR&M Long Government Credit Fund LLC                                      | -                     | 625                  | 579                  | 625                                                        | 46                     |
| IR&M Long Government Credit Fund LLC                                      | -                     | 15,000               | 13,255               | 15,000                                                     | 1,745                  |
| IR&M Long Government Credit Fund LLC                                      | -                     | 789                  | 700                  | 789                                                        | 89                     |
| IR&M Long Government Credit Fund LLC                                      | -                     | 15,000               | 12,788               | 15,000                                                     | 2,212                  |
| IR&M Long Government Credit Fund LLC                                      | -                     | 17,500               | 14,628               | 17,500                                                     | 2,872                  |
| IR&M Long Government Credit Fund LLC                                      | 50,000                | -                    | 50,000               | 50,000                                                     | -                      |
| IR&M Long Government Credit Fund LLC                                      | -                     | 835                  | 692                  | 835                                                        | 143                    |
| IR&M Long Government Credit Fund LLC                                      | -                     | 25,000               | 19,180               | 25,000                                                     | 5,820                  |
| IR&M Long Government Credit Fund LLC                                      | -                     | 30,000               | 23,305               | 30,000                                                     | 6,695                  |
| IR&M Long Government Credit Fund LLC                                      | -                     | 20,000               | 16,022               | 20,000                                                     | 3,978                  |
| IR&M Long Government Credit Fund LLC                                      | -                     | 917                  | 721                  | 917                                                        | 196                    |
| IR&M Long Government Credit Fund LLC                                      | -                     | 40,000               | 31,488               | 40,000                                                     | 8,512                  |
| Neuberger Berman U.S. Equity Index Putwrite Fund LLC                      | -                     | 75,000               | 75,000               | 75,000                                                     | -                      |
| Frontier Small Cap Value Fund, L.P.                                       | -                     | 35,000               | 35,000               | 35,000                                                     | -                      |
| <b>Category 3 - Series of transactions in excess of 5% of plan assets</b> |                       |                      |                      |                                                            |                        |
| IR&M Long Government Credit Fund LLC                                      | \$ 180,000            | \$ -                 | \$ 180,000           | \$ 180,000                                                 | \$ -                   |
| IR&M Long Government Credit Fund LLC                                      | -                     | 165,666              | 133,358              | 32,307                                                     | -                      |
| Wells Fargo Bank Collateralized Instl Bank Deposit                        | -                     | 1,056,470            | 1,056,470            | 1,056,470                                                  | -                      |

**SCHEDULE SB  
(Form 5500)**Department of the Treasury  
Internal Revenue ServiceDepartment 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.

|                                                                                                                                                                          |  |                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------|
| <b>A</b> Name of plan<br>ALERIS RETIREMENT PLAN FOR BARGAINED EMPLOYEES                                                                                                  |  | <b>B</b> Three-digit plan number (PN) ▶<br><u>003</u>              |
| <b>C</b> Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF<br>ALERIS ROLLED PRODUCTS, INC.                                                                 |  | <b>D</b> Employer Identification Number (EIN)<br><u>27-1539745</u> |
| <b>E</b> Type of plan: <input checked="" type="checkbox"/> Single <input type="checkbox"/> Multiple-A <input type="checkbox"/> Multiple-B <input type="checkbox"/> Other |  |                                                                    |
| <b>F</b> Prior year plan size: <input type="checkbox"/> 100 or fewer <input type="checkbox"/> 101-500 <input checked="" type="checkbox"/> More than 500                  |  |                                                                    |

**Part I Basic Information**

|                                                                                                                                                                                                                 |                            |                           |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------|--------------------------|
| <b>1</b> Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2019</u>                                                                                                                               |                            |                           |                          |
| <b>2</b> Assets:                                                                                                                                                                                                |                            |                           |                          |
| <b>a</b> Market value.....                                                                                                                                                                                      |                            | <b>2a</b>                 | <u>3,674,193</u>         |
| <b>b</b> Actuarial value .....                                                                                                                                                                                  |                            | <b>2b</b>                 | <u>3,893,184</u>         |
| <b>3</b> Funding target/participant count breakdown                                                                                                                                                             | (1) Number of participants | (2) Vested Funding Target | (3) Total Funding Target |
| <b>a</b> For retired participants and beneficiaries receiving payment .....                                                                                                                                     | <u>92</u>                  | <u>2,104,173</u>          | <u>2,104,173</u>         |
| <b>b</b> For terminated vested participants .....                                                                                                                                                               | <u>56</u>                  | <u>1,134,178</u>          | <u>1,134,178</u>         |
| <b>c</b> For active participants .....                                                                                                                                                                          | <u>34</u>                  | <u>865,424</u>            | <u>979,366</u>           |
| <b>d</b> Total .....                                                                                                                                                                                            | <u>182</u>                 | <u>4,103,775</u>          | <u>4,217,717</u>         |
| <b>4</b> If the plan is in at-risk status, check the box and complete lines (a) and (b)..... <input type="checkbox"/>                                                                                           |                            |                           |                          |
| <b>a</b> Funding target disregarding prescribed at-risk assumptions .....                                                                                                                                       |                            | <b>4a</b>                 |                          |
| <b>b</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 ..... |                            | <b>4b</b>                 |                          |
| <b>5</b> Effective interest rate .....                                                                                                                                                                          | <b>5</b>                   | <u>5.61%</u>              |                          |
| <b>6</b> Target normal cost .....                                                                                                                                                                               | <b>6</b>                   | <u>151,622</u>            |                          |

**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.

|                                      |                            |                                        |
|--------------------------------------|----------------------------|----------------------------------------|
| <b>SIGN HERE</b>                     | <u>NICHOLAS FRIES NJCF</u> | <u>09/25/2020</u>                      |
| Signature of actuary                 |                            | Date                                   |
| <u>NICHOLAS FRIES</u>                |                            | <u>2007926</u>                         |
| Type or print name of actuary        |                            | Most recent enrollment number          |
| <u>MERCER</u>                        |                            | <u>216-830-8031</u>                    |
| Firm name                            |                            | Telephone number (including area code) |
| <u>200 PUBLIC SQUARE, SUITE 3760</u> |                            |                                        |
| <u>CLEVELAND</u>                     | <u>OH 44114</u>            |                                        |
| 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 ☐**For Paperwork Reduction Act Notice, see the Instructions for Form 5500 or 5500-SF.****Schedule SB (Form 5500) 2019  
v. 190130**

**Part II Beginning of Year Carryover and Prefunding Balances**

|                                                                                                                                                                     | (a) Carryover balance | (b) Prefunding balance |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------|
| <b>7</b> Balance at beginning of prior year after applicable adjustments (line 13 from prior year).....                                                             | 0                     | 0                      |
| <b>8</b> Portion elected for use to offset prior year's funding requirement (line 35 from prior year) .....                                                         | 0                     | 0                      |
| <b>9</b> Amount remaining (line 7 minus line 8).....                                                                                                                | 0                     | 0                      |
| <b>10</b> Interest on line 9 using prior year's actual return of <u>-6.14%</u> .....                                                                                | 0                     | 0                      |
| <b>11</b> Prior year's excess contributions to be added to prefunding balance:                                                                                      |                       |                        |
| <b>a</b> Present value of excess contributions (line 38a from prior year).....                                                                                      |                       | 132                    |
| <b>b(1)</b> 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 <u>5.78%</u> ..... |                       | 8                      |
| <b>b(2)</b> Interest on line 38b from prior year Schedule SB, using prior year's actual return.....                                                                 |                       | 0                      |
| <b>c</b> Total available at beginning of current plan year to add to prefunding balance.....                                                                        |                       | 140                    |
| <b>d</b> Portion of (c) to be added to prefunding balance.....                                                                                                      |                       | 0                      |
| <b>12</b> Other reductions in balances due to elections or deemed elections.....                                                                                    | 0                     | 0                      |
| <b>13</b> Balance at beginning of current year (line 9 + line 10 + line 11d – line 12).....                                                                         | 0                     | 0                      |

**Part III Funding Percentages**

|                                                                                                                                                                            |           |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------|
| <b>14</b> Funding target attainment percentage .....                                                                                                                       | <b>14</b> | 92.30% |
| <b>15</b> Adjusted funding target attainment percentage.....                                                                                                               | <b>15</b> | 92.30% |
| <b>16</b> Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement ..... | <b>16</b> | 98.11% |
| <b>17</b> If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage. ....                                        | <b>17</b> | %      |

**Part IV Contributions and Liquidity Shortfalls**

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

| (a) Date<br>(MM-DD-YYYY) | (b) Amount paid by<br>employer(s) | (c) Amount paid by<br>employees | (a) Date<br>(MM-DD-YYYY) | (b) Amount paid by<br>employer(s) | (c) Amount paid by<br>employees |
|--------------------------|-----------------------------------|---------------------------------|--------------------------|-----------------------------------|---------------------------------|
| 04/10/2019               | 34,000                            | 0                               |                          |                                   |                                 |
| 07/11/2019               | 34,000                            | 0                               |                          |                                   |                                 |
| 10/10/2019               | 34,000                            | 0                               |                          |                                   |                                 |
| 01/10/2020               | 34,000                            | 0                               |                          |                                   |                                 |
| 09/14/2020               | 85,000                            | 0                               |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
|                          |                                   |                                 |                          |                                   |                                 |
| <b>Totals ▶</b>          |                                   |                                 | <b>18(b)</b>             | 221,000                           | <b>18(c)</b>                    |
|                          |                                   |                                 |                          |                                   | 0                               |

**19** Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

|                                                                                                                        |            |         |
|------------------------------------------------------------------------------------------------------------------------|------------|---------|
| <b>a</b> Contributions allocated toward unpaid minimum required contributions from prior years.....                    | <b>19a</b> | 0       |
| <b>b</b> Contributions made to avoid restrictions adjusted to valuation date .....                                     | <b>19b</b> | 0       |
| <b>c</b> Contributions allocated toward minimum required contribution for current year adjusted to valuation date..... | <b>19c</b> | 208,748 |

**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? .....

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

| Liquidity shortfall as of end of quarter of this plan year |         |         |         |   |
|------------------------------------------------------------|---------|---------|---------|---|
| (1) 1st                                                    | (2) 2nd | (3) 3rd | (4) 4th |   |
| 0                                                          | 0       | 0       | 0       | 0 |

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

|                                                 |                                                                                                                                              |                        |                        |                                                     |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------|-----------------------------------------------------|
| <b>21</b> Discount rate:                        |                                                                                                                                              |                        |                        |                                                     |
| <b>a</b> Segment rates:                         | 1st segment:<br>3.74 %                                                                                                                       | 2nd segment:<br>5.35 % | 3rd segment:<br>6.11 % | <input type="checkbox"/> N/A, full yield curve used |
| <b>b</b> Applicable month (enter code).....     |                                                                                                                                              |                        |                        | <b>21b</b> 0                                        |
| <b>22</b> Weighted average retirement age ..... |                                                                                                                                              |                        |                        | <b>22</b> 63                                        |
| <b>23</b> Mortality table(s) (see instructions) | <input type="checkbox"/> Prescribed - combined <input checked="" type="checkbox"/> Prescribed - separate <input type="checkbox"/> Substitute |                        |                        |                                                     |

**Part VI Miscellaneous Items**

|                                                                                                                                                                        |                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>24</b> Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment. .... | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>25</b> Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment. ....                                      | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>26</b> Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. ....                            | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>27</b> If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment .....                                   | <b>27</b>                                                           |

**Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years**

|                                                                                                                                      |           |   |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------|---|
| <b>28</b> Unpaid minimum required contributions for all prior years .....                                                            | <b>28</b> | 0 |
| <b>29</b> Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a) ..... | <b>29</b> | 0 |
| <b>30</b> Remaining amount of unpaid minimum required contributions (line 28 minus line 29) .....                                    | <b>30</b> | 0 |

**Part VIII Minimum Required Contribution For Current Year**

| <b>31</b> Target normal cost and excess assets (see instructions):                                                                                                                   |                                                                                                                                                                                                                                                                                                                                          |                   |                    |  |                     |             |                                                       |         |        |                                                |   |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------|--|---------------------|-------------|-------------------------------------------------------|---------|--------|------------------------------------------------|---|---|
| <b>a</b> Target normal cost (line 6) .....                                                                                                                                           | <b>31a</b>                                                                                                                                                                                                                                                                                                                               | 151,622           |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>b</b> Excess assets, if applicable, but not greater than line 31a .....                                                                                                           | <b>31b</b>                                                                                                                                                                                                                                                                                                                               | 0                 |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>32</b> Amortization installments:                                                                                                                                                 | <table border="1"> <thead> <tr> <th></th> <th>Outstanding Balance</th> <th>Installment</th> </tr> </thead> <tbody> <tr> <td><b>a</b> Net shortfall amortization installment .....</td> <td>324,533</td> <td>56,975</td> </tr> <tr> <td><b>b</b> Waiver amortization installment .....</td> <td>0</td> <td>0</td> </tr> </tbody> </table> |                   |                    |  | Outstanding Balance | Installment | <b>a</b> Net shortfall amortization installment ..... | 324,533 | 56,975 | <b>b</b> Waiver amortization installment ..... | 0 | 0 |
|                                                                                                                                                                                      | Outstanding Balance                                                                                                                                                                                                                                                                                                                      | Installment       |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>a</b> Net shortfall amortization installment .....                                                                                                                                | 324,533                                                                                                                                                                                                                                                                                                                                  | 56,975            |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>b</b> Waiver amortization installment .....                                                                                                                                       | 0                                                                                                                                                                                                                                                                                                                                        | 0                 |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>33</b> 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 ..... | <b>33</b>                                                                                                                                                                                                                                                                                                                                |                   |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>34</b> Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)....                                                           | <b>34</b>                                                                                                                                                                                                                                                                                                                                | 208,597           |                    |  |                     |             |                                                       |         |        |                                                |   |   |
|                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                          | Carryover balance | Prefunding balance |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>35</b> Balances elected for use to offset funding requirement .....                                                                                                               |                                                                                                                                                                                                                                                                                                                                          | 0                 | 0                  |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>36</b> Additional cash requirement (line 34 minus line 35) .....                                                                                                                  | <b>36</b>                                                                                                                                                                                                                                                                                                                                | 208,597           |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>37</b> Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c) .....                                                  | <b>37</b>                                                                                                                                                                                                                                                                                                                                | 208,748           |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>38</b> Present value of excess contributions for current year (see instructions)                                                                                                  |                                                                                                                                                                                                                                                                                                                                          |                   |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>a</b> Total (excess, if any, of line 37 over line 36) .....                                                                                                                       | <b>38a</b>                                                                                                                                                                                                                                                                                                                               | 151               |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>b</b> Portion included in line 38a attributable to use of prefunding and funding standard carryover balances .....                                                                | <b>38b</b>                                                                                                                                                                                                                                                                                                                               | 0                 |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>39</b> Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37) .....                                                                      | <b>39</b>                                                                                                                                                                                                                                                                                                                                | 0                 |                    |  |                     |             |                                                       |         |        |                                                |   |   |
| <b>40</b> Unpaid minimum required contributions for all years .....                                                                                                                  | <b>40</b>                                                                                                                                                                                                                                                                                                                                | 0                 |                    |  |                     |             |                                                       |         |        |                                                |   |   |

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

|                                                                                  |                                                                                                                         |  |  |  |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>41</b> If an election was made to use PRA 2010 funding relief for this plan:  |                                                                                                                         |  |  |  |
| <b>a</b> Schedule elected .....                                                  | <input type="checkbox"/> 2 plus 7 years <input type="checkbox"/> 15 years                                               |  |  |  |
| <b>b</b> Eligible plan year(s) for which the election in line 41a was made ..... | <input type="checkbox"/> 2008 <input type="checkbox"/> 2009 <input type="checkbox"/> 2010 <input type="checkbox"/> 2011 |  |  |  |

*Schedule SB, line 22 — Description of Weighted Average Retirement Age*

Each employee is assumed to retire in accordance with the table of retirement rates. The proportion of employees expected to retire at each potential retirement age is shown below. The average retirement age is 63.

| Richmond members with less than 30 years of vesting service |                    |         |                                                     |           |
|-------------------------------------------------------------|--------------------|---------|-----------------------------------------------------|-----------|
| (A)                                                         | (B)                | (C)     | (D)                                                 | (E)       |
| Retirement age                                              | Retirement Percent | Lx      | Number of employees expected to retire<br>(B) x (C) | (A) x (D) |
| 55                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 56                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 57                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 58                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 59                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 60                                                          | 15.00%             | 100,000 | 15,000                                              | 900,000   |
| 61                                                          | 10.00%             | 85,000  | 8,500                                               | 518,500   |
| 62                                                          | 40.00%             | 76,500  | 30,600                                              | 1,897,200 |
| 63                                                          | 10.00%             | 45,900  | 4,590                                               | 289,170   |
| 64                                                          | 10.00%             | 41,310  | 4,131                                               | 264,384   |
| 65                                                          | 100.00%            | 37,179  | 37,179                                              | 2,416,635 |
| Total                                                       |                    |         | 100,000                                             | 6,285,889 |
| Average                                                     |                    |         |                                                     | 62.86     |

*Schedule SB, line 22 — Description of Weighted Average Retirement Age*

| Ashville members with less than 30 years of vesting service |                    |         |                                                     |           |
|-------------------------------------------------------------|--------------------|---------|-----------------------------------------------------|-----------|
| (A)                                                         | (B)                | (C)     | (D)                                                 | (E)       |
| Retirement age                                              | Retirement Percent | Lx      | Number of employees expected to retire<br>(B) x (C) | (A) x (D) |
| 55                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 56                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 57                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 58                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 59                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 60                                                          | 15.00%             | 100,000 | 15,000                                              | 900,000   |
| 61                                                          | 10.00%             | 85,000  | 8,500                                               | 518,500   |
| 62                                                          | 25.00%             | 76,500  | 19,125                                              | 1,185,750 |
| 63                                                          | 10.00%             | 57,375  | 5,738                                               | 361,494   |
| 64                                                          | 10.00%             | 51,637  | 5,164                                               | 330,496   |
| 65                                                          | 100.00%            | 46,473  | 46,473                                              | 3,020,745 |
| Total                                                       |                    |         | 100,000                                             | 6,316,985 |
| Average                                                     |                    |         |                                                     | 63.17     |

*Schedule SB, line 22 — Description of Weighted Average Retirement Age*

| Employees with more than 30 years of vesting service |                    |         |                                                     |           |
|------------------------------------------------------|--------------------|---------|-----------------------------------------------------|-----------|
| (A)                                                  | (B)                | (C)     | (D)                                                 | (E)       |
| Retirement age                                       | Retirement Percent | Lx      | Number of employees expected to retire<br>(B) x (C) | (A) x (D) |
| 55                                                   | 5.00%              | 100,000 | 5,000                                               | 275,000   |
| 56                                                   | 5.00%              | 95,000  | 4,750                                               | 266,000   |
| 57                                                   | 5.00%              | 90,250  | 4,513                                               | 257,241   |
| 58                                                   | 5.00%              | 85,737  | 4,287                                               | 248,646   |
| 59                                                   | 5.00%              | 81,450  | 4,073                                               | 240,307   |
| 60                                                   | 10.00%             | 77,377  | 7,738                                               | 464,280   |
| 61                                                   | 10.00%             | 69,639  | 6,964                                               | 424,804   |
| 62                                                   | 40.00%             | 62,675  | 25,070                                              | 1,554,340 |
| 63                                                   | 10.00%             | 37,605  | 3,761                                               | 236,943   |
| 64                                                   | 10.00%             | 33,844  | 3,384                                               | 216,576   |
| 65                                                   | 100.00%            | 30,460  | 30,460                                              | 1,979,900 |
| Total                                                |                    |         | 100,000                                             | 6,164,037 |
| Average                                              |                    |         |                                                     | 61.64     |

Note: Column (D) is the product of columns (B) and (C). Column (E) is the product of columns (A) and (D). The average retirement age for each plan is the total from column (E) divided by the total from column (D). The final average retirement age is a weighted average of the average ages from the individual exhibits.

*Schedule SB, line 22 — Description of Weighted Average Retirement Age*

| Group                   | Number of Employees | Average Retirement Age | Number of Employees x Average Retirement Age |
|-------------------------|---------------------|------------------------|----------------------------------------------|
| Bellwood                | 5                   | 62.86                  | 314                                          |
| Ashville                | 19                  | 63.17                  | 1,200                                        |
| Employees >= 30 yrs svc | 10                  | 61.64                  | 616                                          |
| <b>Total</b>            | <b>34</b>           |                        | <b>2,130</b>                                 |
|                         |                     | <b>Average</b>         | <b>62.65</b>                                 |

## Schedule SB, Part V — Statement of Actuarial Assumptions/Methods

## ACTUARIAL ASSUMPTIONS

## DISCOUNT RATE SPONSOR ELECTIONS

|                                                                               |                                                                                                                                                                                                                                                                    |                      |  |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--|
| • Segment rates or full yield curve                                           | Segment                                                                                                                                                                                                                                                            |                      |  |
| • Look-back months                                                            | 0                                                                                                                                                                                                                                                                  |                      |  |
|                                                                               | <u>Stabilized</u>                                                                                                                                                                                                                                                  | <u>Nonstabilized</u> |  |
| • First 5 years                                                               | 3.74%                                                                                                                                                                                                                                                              | 2.55%                |  |
| • Next 15 years                                                               | 5.35%                                                                                                                                                                                                                                                              | 3.93%                |  |
| • Over 20 years                                                               | 6.11%                                                                                                                                                                                                                                                              | 4.49%                |  |
| <b>Mortality sponsor elections</b>                                            |                                                                                                                                                                                                                                                                    |                      |  |
| • Healthy participants<br>• Pre-1995 disabilities<br>• Post-1994 disabilities | Section 430(h)(3) prescribed PPA 2019 separate static annuitant and non-annuitant mortality tables. These tables are developed by the IRS, based on the RP-2014 mortality tables backed off to 2006 with mortality improvement based on projections scale MP-2017. |                      |  |
| <b>Other economic assumptions</b>                                             |                                                                                                                                                                                                                                                                    |                      |  |
| • Expected investment return                                                  | 7.75% for year 2017<br>7.10% for year 2018<br>7.05% for year 2019<br>(limited to 3rd segment rate)                                                                                                                                                                 |                      |  |
| • Expenses                                                                    | \$150,000 added to current year normal cost                                                                                                                                                                                                                        |                      |  |

## RATIONALE FOR ECONOMIC ASSUMPTIONS

- **Discount Rate** – As prescribed by IRS.
- **Expected investment return** – The expected rate of return on plan assets is based on a blend of the hypothetical past performance of the plan's target asset mix, adjusted for current market conditions, and the median simulated investment return using capital market assumptions published in Mercer Investment Consulting's Capital Markets Outlook for the plan's target asset mix. The expected return on assets assumption is net of an adjustment for investment expenses assumed to be paid from plan assets.
- **Expenses** – Expenses are based on year-by-year experience for actual administrative expenses paid from plan assets and adjusted for the difference in expected PBGC premium.

*Schedule SB, Part V — Statement of Actuarial Assumptions/Methods*

**DEMOGRAPHIC ASSUMPTIONS**

| • Withdrawal                         | See table of sample rates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                     |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------|--|--------------|------------|--|--|-----------------------------------------------------|-----------------------------------------------------|-------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|----|-----|-----|-----|----|-----|-----|-----|----|-----|-----|-----|----|-----|-----|-----|----|------|------|------|
| • Disability incidence               | See table of sample rates that based on the 1985 Pension Disability Class 3 tables.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                     |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| • Retirement age                     | <table><tr><th rowspan="2">Attained age</th><th colspan="3">Percentage</th></tr><tr><th>Less than 30 years of service for Ashville location</th><th>Less than 30 years of service for Richmond location</th><th>More than 30 years of service</th></tr><tr><td>55</td><td>0%</td><td>0%</td><td>5%</td></tr><tr><td>56</td><td>0%</td><td>0%</td><td>5%</td></tr><tr><td>57</td><td>0%</td><td>0%</td><td>5%</td></tr><tr><td>58</td><td>0%</td><td>0%</td><td>5%</td></tr><tr><td>59</td><td>0%</td><td>0%</td><td>5%</td></tr><tr><td>60</td><td>15%</td><td>15%</td><td>10%</td></tr><tr><td>61</td><td>10%</td><td>10%</td><td>10%</td></tr><tr><td>62</td><td>25%</td><td>40%</td><td>40%</td></tr><tr><td>63</td><td>10%</td><td>10%</td><td>10%</td></tr><tr><td>64</td><td>10%</td><td>10%</td><td>10%</td></tr><tr><td>65</td><td>100%</td><td>100%</td><td>100%</td></tr></table> |                                                     |                               |  | Attained age | Percentage |  |  | Less than 30 years of service for Ashville location | Less than 30 years of service for Richmond location | More than 30 years of service | 55 | 0% | 0% | 5% | 56 | 0% | 0% | 5% | 57 | 0% | 0% | 5% | 58 | 0% | 0% | 5% | 59 | 0% | 0% | 5% | 60 | 15% | 15% | 10% | 61 | 10% | 10% | 10% | 62 | 25% | 40% | 40% | 63 | 10% | 10% | 10% | 64 | 10% | 10% | 10% | 65 | 100% | 100% | 100% |
| Attained age                         | Percentage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                     |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
|                                      | Less than 30 years of service for Ashville location                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Less than 30 years of service for Richmond location | More than 30 years of service |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 55                                   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0%                                                  | 5%                            |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 56                                   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0%                                                  | 5%                            |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 57                                   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0%                                                  | 5%                            |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 58                                   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0%                                                  | 5%                            |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 59                                   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0%                                                  | 5%                            |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 60                                   | 15%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 15%                                                 | 10%                           |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 61                                   | 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10%                                                 | 10%                           |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 62                                   | 25%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 40%                                                 | 40%                           |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 63                                   | 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10%                                                 | 10%                           |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 64                                   | 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10%                                                 | 10%                           |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| 65                                   | 100%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 100%                                                | 100%                          |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| • Benefit commencement age for       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                     |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| – Future and current vested deferred | <p><b><u>Richmond participants</u></b><br/>62 with 10 years of service or 65.</p> <p><b><u>Ashville participants</u></b><br/>65</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                     |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| • Spouse assumptions                 | <b><u>Male participants</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b><u>Female participants</u></b>                   |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| – Percentage married                 | 75%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 75%                                                 |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |
| – Spouse age difference              | 3 years younger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3 years older                                       |                               |  |              |            |  |  |                                                     |                                                     |                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |     |     |     |    |      |      |      |

*Schedule SB, Part V — Statement of Actuarial Assumptions/Methods*

| <b>Form of payment</b>                            | <b><u>Life Annuity</u></b>         | <b><u>50% J&amp;S w/ PopUp</u></b> |
|---------------------------------------------------|------------------------------------|------------------------------------|
| • Active retirements                              | 25%                                | 75%                                |
| • Future vested deferred                          | 25%                                | 75%                                |
| • Future disabilities                             | 25%                                | 75%                                |
| • Future deaths                                   | 0%                                 | 100% (no pop-up)                   |
| • Current vested deferred                         | 25%                                | 75%                                |
| <b>Unpredictable contingent event assumptions</b> | Likelihood of event is de minimis. |                                    |

*Schedule SB, Part V — Statement of Actuarial Assumptions/Methods***Table of Sample Rates**

| ATTAINED<br>AGE | PERCENTAGE |                      |        |
|-----------------|------------|----------------------|--------|
|                 | WITHDRAWAL | DISABILITY INCIDENCE |        |
|                 |            | MALE                 | FEMALE |
| 20              | 4.86%      | 0.15%                | 0.09%  |
| 25              | 3.90%      | 0.22%                | 0.15%  |
| 30              | 3.10%      | 0.31%                | 0.25%  |
| 35              | 2.42%      | 0.43%                | 0.39%  |
| 40              | 1.88%      | 0.60%                | 0.55%  |
| 45              | 1.46%      | 0.83%                | 0.78%  |
| 50              | 1.12%      | 1.22%                | 1.20%  |
| 55              | 0.84%      | 2.12%                | 1.96%  |
| 60              | 0.60%      | 3.24%                | 2.33%  |
| 65              | 0.38%      | 4.37%                | 2.72%  |

**RATIONALE FOR DEMOGRAPHIC ASSUMPTIONS**

- **Mortality** – Mortality table prescribed by the IRS.
- **Withdrawal** – The termination table is based on the Society of Actuaries 2003 small plan, age-based turnover table with adjustments. Annual review of the experience has shown that this table produced a reasonable approximation of the rates of termination experienced by the plan.
- **Retirement age** – Retirement rates have been based on the actuary's experience with similar plans, taking into consideration retirement subsidies the plan offers at various ages and the age social insurance programs are first available. Annual review of the plan experience has shown that these rates provide similar results to the actual rates of retirement experienced under the plan.

*Schedule SB, Part V — Statement of Actuarial Assumptions/Methods***ACTUARIAL METHODS****Asset Methods**

The asset valuation method is an average of the adjusted market value for each year during the last two years preceding the valuation date. The adjusted market value is the market value at each determination date adjusted to the valuation date based on actual cash flows and expected interest at the lesser of the expected rate of return and the third segment rate. This amount is adjusted to be no greater than 110% and no less than 90% of the fair market value, as defined in IRC Section 430.

A characteristic of this asset method is that, over time, it is slightly more likely to produce an actuarial value of assets that is less than the market value of assets than an actuarial value that is greater than the market value.

**Participant Methods**

Participants or former participants are included or excluded from the valuation as described below:

- **Participants included:** The plan sponsor provides us with data on all employees as of the valuation date.
- **Participants excluded:** No actuarial liability is included for nonvested participants who terminated prior to the valuation date. For this purpose, participants with a break in service on the valuation date are treated as terminated participants.
- **Insurance contracts:** The plan does not have any insurance contracts.

**Minimum Funding Methods**

The funding target for minimum funding calculations is computed using the traditional unit credit method of funding. The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, the total pension to which each participant is expected to become entitled at retirement is broken down into units, each associated with a year of past or future credited service.

A detailed description of the calculation follows:

- The plan's valuation date is the beginning of the plan year.
- An individual's **funding target** is the present value of future benefits based on credited service and average pay as of the beginning of the plan year, and an individual's **target**

*Schedule SB, Part V — Statement of Actuarial Assumptions/Methods*

**normal cost** is the present value of the benefit expected to accrue in the plan year. If multiple decrements are used, the funding target and the target normal cost for an individual is the sum of the component funding targets and target normal costs associated with the various anticipated separation dates.

- This plan provides benefits that are not a function of a participant's accrued benefit or years of service. This benefit is allocated to funding target based on the ratio of the participant's service at the beginning of the plan year to their service at each decrement age and is allocated to target normal cost based on the proportionate benefit attributable to the increase in the participant's service and compensation during the plan year.
- The plan's **target normal cost** is the sum of the individual target normal costs, and the plan's funding target is the sum of the individual **funding targets** for all participants under the plan.

*Schedule SB, Part V — Summary of Plan Provisions*

**SUMMARY OF MAJOR PLAN PROVISIONS**

|                                                  |                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Effective date and plan year                     | Original plan: May 23, 2003<br>Restated plan: January 1, 2015<br>Plan year: January 1 – December 31                                                                                                                                                                                                                                                                        |
| Status of the plan                               | Credited Service was frozen effective January 1, 2008 for all participants with the exception of Ashville union participants who were frozen effective February 1, 2008. New hires after September 1, 2001 for Richmond and February 1, 2001 for Ashville are not eligible to participate.                                                                                 |
| Significant events that occurred during the year | None                                                                                                                                                                                                                                                                                                                                                                       |
| <b>DEFINITIONS</b>                               |                                                                                                                                                                                                                                                                                                                                                                            |
| • Covered employees                              | An individual employed by the Employer or any other employer require to be aggregated with the Employer                                                                                                                                                                                                                                                                    |
| • Participation                                  | Bargaining employees who have attained age 21 with four calendar quarters of service at the Richmond Plant 44 location whose date of employment occurred prior to September 1, 2001 or a bargaining employee of the Ashville Ohio Plant Location whose date of employment occurred prior to February 1, 2001.                                                              |
| • Employee contributions                         | None.                                                                                                                                                                                                                                                                                                                                                                      |
| • Vesting service                                | All service is measured in full and fractional years on the basis that 365 days equals one year from the employee's hire date (reduced by any period of Severance).                                                                                                                                                                                                        |
| • Credited service                               | All service measured from the date of employment, expressed as the total number of calendar quarters in each of which the employee receives wages, disability benefits or workman's compensation. Credited Service was frozen effective January 1, 2008 for all participants with the exception of Ashville union participants who were frozen effective February 1, 2008. |
| • Accrued benefit                                | On any date, the amount of monthly retirement benefit accrued by an active participant.                                                                                                                                                                                                                                                                                    |

*Schedule SB, Part V — Summary of Plan Provisions*

| NORMAL RETIREMENT                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                         |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------|---------------------------------------------------------|--------|---------|---------|--------|---------|---------|---------|---------|---------|----------|---------|---------|----------|---------|---------|----------|---------|---------|------|---------|---------|
| <ul style="list-style-type: none"><li>Eligibility</li></ul> | <p>The first day of the month following or coincident with the earliest of:</p> <ul style="list-style-type: none"><li>The later of age 65 or 5 years of Credited Service</li><li>30 years of Vesting Service</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                         |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| <ul style="list-style-type: none"><li>Benefit</li></ul>     | <p><u>Richmond Location</u></p> <p>The sum of the pension factors from the appropriate wage grades times the service earned while in the wage grade, less the amount payable from any prior plan. Participants who retire between August 1, 2004 and August 1, 2006 are eligible for all the benefit increases in the bargaining period.</p> <table><tr><th>Pre-August 1, 2001<br/>wage grade</th><th>Service prior<br/>to August 1, 2001</th><th>Service between<br/>August 1, 2001 and<br/>August 1, 2004</th></tr><tr><td>1 to 4</td><td>\$33.25</td><td>\$39.25</td></tr><tr><td>5 to 8</td><td>\$34.55</td><td>\$40.55</td></tr><tr><td>9 to 12</td><td>\$35.90</td><td>\$41.90</td></tr><tr><td>13 to 16</td><td>\$37.25</td><td>\$43.25</td></tr><tr><td>17 to 20</td><td>\$38.55</td><td>\$44.55</td></tr><tr><td>21 to 24</td><td>\$39.90</td><td>\$45.90</td></tr><tr><td>25 +</td><td>\$41.25</td><td>\$47.25</td></tr></table> | Pre-August 1, 2001<br>wage grade                        | Service prior<br>to August 1, 2001 | Service between<br>August 1, 2001 and<br>August 1, 2004 | 1 to 4 | \$33.25 | \$39.25 | 5 to 8 | \$34.55 | \$40.55 | 9 to 12 | \$35.90 | \$41.90 | 13 to 16 | \$37.25 | \$43.25 | 17 to 20 | \$38.55 | \$44.55 | 21 to 24 | \$39.90 | \$45.90 | 25 + | \$41.25 | \$47.25 |
| Pre-August 1, 2001<br>wage grade                            | Service prior<br>to August 1, 2001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Service between<br>August 1, 2001 and<br>August 1, 2004 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 1 to 4                                                      | \$33.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$39.25                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 5 to 8                                                      | \$34.55                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$40.55                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 9 to 12                                                     | \$35.90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$41.90                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 13 to 16                                                    | \$37.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$43.25                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 17 to 20                                                    | \$38.55                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$44.55                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 21 to 24                                                    | \$39.90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$45.90                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 25 +                                                        | \$41.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$47.25                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |

*Schedule SB, Part V — Summary of Plan Provisions*

|            | Service on and after August 1, 2004 |                          |                          |
|------------|-------------------------------------|--------------------------|--------------------------|
| Wage Grade | Effective August 1, 2004            | Effective August 1, 2005 | Effective August 1, 2006 |
| 1 to 4     | \$41.25                             | \$43.25                  | \$45.25                  |
| 5 to 8     | \$42.55                             | \$44.55                  | \$46.55                  |
| 9 to 12    | \$43.90                             | \$45.90                  | \$47.90                  |
| 13 to 16   | \$45.25                             | \$47.25                  | \$49.25                  |
| 17 to 20   | \$46.55                             | \$48.55                  | \$50.55                  |
| 21 to 24   | \$47.90                             | \$49.90                  | \$51.90                  |
| 25 +       | \$49.25                             | \$51.25                  | \$53.25                  |

**Ashville Location**

Pension factor determined by employment date times service, less the amount payable from any prior plan. Participants who retire between May 23, 2003 and February 1, 2006 are eligible for all the benefit increases in the bargaining period.

| Service                       | Employment Prior to March 1, 1984 | Employment on and after March 1, 1984 |
|-------------------------------|-----------------------------------|---------------------------------------|
| Prior to February 1, 1998     | \$21.00                           | \$18.50                               |
| On and after February 1, 1998 | \$24.00                           | \$21.50                               |
| Effective February 1, 1999    | \$28.00                           | \$25.50                               |
| Effective February 1, 2000    | \$32.00                           | \$29.50                               |
| Effective February 1, 2001    | \$35.00                           | \$32.50                               |
| Effective February 1, 2002    | \$38.00                           | \$35.50                               |
| Effective February 1, 2003    | \$40.00                           | \$37.50                               |
| Effective February 1, 2004    | \$42.00                           | \$39.50                               |
| Effective February 1, 2005    | \$43.00                           | \$40.50                               |

*Schedule SB, Part V — Summary of Plan Provisions*

|                                        |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                 |                                                                                                                                                                     |                                                                                                            |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
|                                        | <p>If the participant is an active participant at retirement, the accrued benefit paid to a married participant receiving a 50% joint and survivor annuity will be reduced 50%</p> <p>If the participant is an inactive participant at retirement, the accrued benefit paid to a married participant receiving a 50% joint and survivor annuity will be reduced</p> |                                                                                                                 |                                                                                                                                                                     |                                                                                                            |
|                                        | <p><b>Years that spouse is younger</b></p> <p>20 or more</p> <p>17 to 19</p> <p>14 to 16</p> <p>11 to 13</p> <p>8 to 10</p> <p>5 to 7</p> <p>2 to 4</p> <p>0 to 1</p>                                                                                                                                                                                               | <p><b>Reduction</b></p> <p>23%</p> <p>22%</p> <p>21%</p> <p>19%</p> <p>18%</p> <p>16%</p> <p>15%</p> <p>13%</p> | <p><b>Years that spouse is older</b></p> <p>0 to 1</p> <p>2 to 4</p> <p>5 to 7</p> <p>8 to 10</p> <p>11 to 13</p> <p>14 to 16</p> <p>17 to 19</p> <p>20 or more</p> | <p><b>Reduction</b></p> <p>13%</p> <p>11%</p> <p>10%</p> <p>8%</p> <p>7%</p> <p>5%</p> <p>4%</p> <p>3%</p> |
|                                        | <p>Pension benefits need to be reduced by the benefit payable under the Reynolds Metals Company Pension Plan prior to March 17, 1997 and the benefit payable under the Owens Corning merged retirement plan on May 22, 2003.</p>                                                                                                                                    |                                                                                                                 |                                                                                                                                                                     |                                                                                                            |
| <b>SUPPLEMENTAL RETIREMENT BENEFIT</b> |                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                 |                                                                                                                                                                     |                                                                                                            |
| • Eligibility                          | <p>Richmond employees who have attained age 55 with 30 years of service.</p> <p><u>Form:</u> Monthly annuity payable until age 62.</p>                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                     |                                                                                                            |

*Schedule SB, Part V — Summary of Plan Provisions*

| <ul style="list-style-type: none"> <li>Benefit</li> </ul>     | <p>Amount determined by subtracting the amount of the accrued benefit from the graded minimum monthly benefit shown below:</p> <table data-bbox="630 575 1097 995"> <thead> <tr> <th>Wage<br/>Grade</th><th>Graded Minimum<br/>Monthly Benefit</th></tr> </thead> <tbody> <tr> <td>1 to 4</td><td>\$1,070</td></tr> <tr> <td>5 to 8</td><td>\$1,100</td></tr> <tr> <td>9 to 12</td><td>\$1,130</td></tr> <tr> <td>13 to 16</td><td>\$1,160</td></tr> <tr> <td>17 to 20</td><td>\$1,190</td></tr> <tr> <td>21 to 24</td><td>\$1,220</td></tr> <tr> <td>25+</td><td>\$1,250</td></tr> </tbody> </table> <p>The supplemental amount is reduced by \$1 for each \$2 that earned income after retirement is over \$10,000 per year.</p> | Wage<br>Grade | Graded Minimum<br>Monthly Benefit | 1 to 4 | \$1,070 | 5 to 8 | \$1,100 | 9 to 12 | \$1,130 | 13 to 16 | \$1,160 | 17 to 20 | \$1,190 | 21 to 24 | \$1,220 | 25+ | \$1,250 |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------|--------|---------|--------|---------|---------|---------|----------|---------|----------|---------|----------|---------|-----|---------|
| Wage<br>Grade                                                 | Graded Minimum<br>Monthly Benefit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 1 to 4                                                        | \$1,070                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 5 to 8                                                        | \$1,100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 9 to 12                                                       | \$1,130                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 13 to 16                                                      | \$1,160                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 17 to 20                                                      | \$1,190                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 21 to 24                                                      | \$1,220                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 25+                                                           | \$1,250                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| <b>EARLY RETIREMENT</b>                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| <ul style="list-style-type: none"> <li>Eligibility</li> </ul> | <p>The first day of any month following attainment of age 60 and completion of 10 years of Vested Service.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| <ul style="list-style-type: none"> <li>Benefit</li> </ul>     | <p><b><u>Richmond Location</u></b></p> <p>Accrued benefit on early retirement date reduced 6% each year in which the early retirement date precedes age 62. No reduction applies after attaining age 62.</p> <p><b><u>Ashville Location</u></b></p> <p>Accrued benefit on early retirement date reduced 6% each year in which the early retirement date precedes age 65. The special retirement benefit will not become payable for an inactive participant until the month following age 65 or 30 years of employment.</p>                                                                                                                                                                                                        |               |                                   |        |         |        |         |         |         |          |         |          |         |          |         |     |         |

*Schedule SB, Part V — Summary of Plan Provisions*

| SPECIAL EARLY RETIREMENT                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Eligibility</li> </ul> | <p><u>1. Richmond:</u> Employees who have been absent from service for 2 years due to a layoff, permanent shut-down, sickness or accident and attained age 55 with 10 years of service and age plus service equals 70 or 10 years of service and age plus service equals 80.</p> <p><u>2. Richmond:</u> Employees who have been absent from service for 2 years due to a layoff, permanent shut-down, sickness or accident and have twenty years of service and age plus service equals 65.</p> <p><u>3. Richmond:</u> Employees who have been absent from service for 3 years due to a layoff, permanent shut-down, sickness or accident and have attained age 55 with 10 years of service.</p> <p><u>4. Ashville:</u> Employees who have been absent from service for 2 years due to a layoff, permanent shut-down, sickness, or accident and have attained age 55 and 10 years of service.</p> <p><u>5. Ashville:</u> Employees who have been absent from service due to a layoff, permanent shut-down, sickness, or accident and attained age 55 with 10 years of service and age plus service equals 75 or 10 years of service and age plus service equals 80.</p> |
| <ul style="list-style-type: none"> <li>Benefit</li> </ul>     | <p><u>1. Richmond:</u> Accrued benefit at retirement plus the Special Retirement Benefit. A supplemental retirement benefit of \$400 per month will also be payable until attaining age 62.</p> <p><u>2. Richmond:</u> Accrued benefit at retirement plus the Special Retirement Benefit. A supplemental retirement benefit of \$400 per month, reduced by ½ of any earned income in excess of \$5500, will also be payable until attaining age 62.</p> <p><u>3. Richmond:</u> Accrued benefit at retirement plus the Special Retirement Benefit.</p> <p><u>4. Ashville:</u> Accrued benefit at retirement plus the Special Retirement Benefit.</p> <p><u>5. Ashville:</u> Accrued benefit at retirement plus the Special Retirement Benefit. A supplemental retirement benefit of \$100 per month will also be payable until attaining age 65 or receiving social security disability benefits.</p>                                                                                                                                                                                                                                                                    |

*Schedule SB, Part V — Summary of Plan Provisions*

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LATE RETIREMENT</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| • Eligibility               | Retirement after reaching normal retirement eligibility.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| • Benefit                   | Greater of accrued benefit on normal retirement date actuarially increased to late retirement date or accrued benefit on late retirement date.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>DEFERRED VESTED</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| • Eligibility               | 5 years of service or age 65.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| • Benefit                   | The participant's accrued benefit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>DISABILITY</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| • Eligibility               | Completion of 10 years of Credited Service and determination that participant is totally and permanently disabled.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| • Benefit                   | <p>Accrued benefit on date of disability.</p> <p><b><u>Richmond Location</u></b></p> <p>If the participant is less than attained age 62, accrued benefit on the date of disability (minimum \$400) plus a supplemental benefit of \$400 per month payable until attaining age 62 or Social Security Disability payments start.</p> <p><b><u>Ashville Location</u></b></p> <p>If the participant is not eligible for Social Security Disability payments, accrued benefit on the date of disability (minimum \$100) plus a supplemental benefit of \$100 per month payable until attaining age 62 or Social Security Disability payments start.</p> |
| <b>PRE-RETIREMENT DEATH</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| • Eligibility               | Partially or fully vested.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • Benefit if active         | <p>Monthly annuity payable to spouse equal to 50% of the accrued benefit.</p> <p>If the participant was at the Richmond Location and had attained age 55 with 30 years of service at the date of death, the spouse will also receive 50% of the Supplemental Retirement Benefit, payable until the participant would have attained age 62.</p>                                                                                                                                                                                                                                                                                                     |

*Schedule SB, Part V — Summary of Plan Provisions*

| <ul style="list-style-type: none"><li>Benefit if inactive</li></ul>                       | Monthly annuity payable to spouse, deferred to attained age 60, equal to the amount that would have been paid had the participant terminated employment on the date of death and survived to his/her age 60, retired with a qualified joint and 50% survivor annuity in effect, then died the next day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |           |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|--|------------------------------|--|----------------------------|--|--|-----------|--|-----------|------------|-----|--------|-----|----------|-----|--------|-----|----------|-----|--------|-----|----------|-----|---------|----|---------|-----|----------|----|--------|-----|----------|----|--------|-----|----------|----|--------|-----|------------|----|
| FORM OF BENEFITS                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |           |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Automatic form for unmarried participants</li></ul> | Life annuity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |           |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Automatic form for married participants</li></ul>   | 50% joint and survivor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |           |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Optional forms</li></ul>                            | Life annuity<br>50% joint and survivor with pop-up<br>75% joint and survivor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                            |           |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Optional form conversion factors</li></ul>          | <p>The 50% joint and survivor with pop-up for active participants is equal to 95% of the life annuity. The 50% joint and survivor for inactive participants is based on the following factors:</p> <table><tr><th colspan="2">Years that spouse is younger</th><th colspan="2">Years that spouse is older</th></tr><tr><th></th><th>Reduction</th><th></th><th>Reduction</th></tr><tr><td>20 or more</td><td>23%</td><td>0 to 1</td><td>13%</td></tr><tr><td>17 to 19</td><td>22%</td><td>2 to 4</td><td>11%</td></tr><tr><td>14 to 16</td><td>21%</td><td>5 to 7</td><td>10%</td></tr><tr><td>11 to 13</td><td>19%</td><td>8 to 10</td><td>8%</td></tr><tr><td>8 to 10</td><td>18%</td><td>11 to 13</td><td>7%</td></tr><tr><td>5 to 7</td><td>16%</td><td>14 to 16</td><td>5%</td></tr><tr><td>2 to 4</td><td>15%</td><td>17 to 19</td><td>4%</td></tr><tr><td>0 to 1</td><td>13%</td><td>20 or more</td><td>3%</td></tr></table> |                            |           |  | Years that spouse is younger |  | Years that spouse is older |  |  | Reduction |  | Reduction | 20 or more | 23% | 0 to 1 | 13% | 17 to 19 | 22% | 2 to 4 | 11% | 14 to 16 | 21% | 5 to 7 | 10% | 11 to 13 | 19% | 8 to 10 | 8% | 8 to 10 | 18% | 11 to 13 | 7% | 5 to 7 | 16% | 14 to 16 | 5% | 2 to 4 | 15% | 17 to 19 | 4% | 0 to 1 | 13% | 20 or more | 3% |
| Years that spouse is younger                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Years that spouse is older |           |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
|                                                                                           | Reduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                            | Reduction |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 20 or more                                                                                | 23%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0 to 1                     | 13%       |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 17 to 19                                                                                  | 22%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2 to 4                     | 11%       |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 14 to 16                                                                                  | 21%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5 to 7                     | 10%       |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 11 to 13                                                                                  | 19%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 8 to 10                    | 8%        |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 8 to 10                                                                                   | 18%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 11 to 13                   | 7%        |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 5 to 7                                                                                    | 16%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 14 to 16                   | 5%        |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 2 to 4                                                                                    | 15%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 17 to 19                   | 4%        |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 0 to 1                                                                                    | 13%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 20 or more                 | 3%        |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
|                                                                                           | The other optional forms use Applicable Interest rate and Mortality found in Code Section 417(e)(3).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |           |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| MISCELLANEOUS                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |           |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Maximum benefits</li></ul>                          | Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2019, the limit is \$225,000.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |           |  |                              |  |                            |  |  |           |  |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |

*Schedule SB, Part V — Summary of Plan Provisions*

|                                      |                                        |
|--------------------------------------|----------------------------------------|
| • Administration                     | Administered by the Benefits Committee |
| • Funding medium                     | Trust                                  |
| • Benefits not included in valuation | None                                   |

**Benefits Included or Excluded**

Unless noted below, all benefits provided by the plan are included in this valuation:

- **Plan amendments excluded:** Amendments adopted after the valuation date or effective after the current plan year are excluded from the valuation.
- **Late retirement increases:**
  - *Active participants:* The plan provides benefit suspension notices to participants who work beyond normal retirement; therefore, late retirement actuarial increases only apply to participants who defer retirement beyond age 70½.
  - *Deferred vested participants:* Current deferred vested participants over normal retirement age are not valued including the late retirement actuarial increase.
- **Internal Revenue Code limitations:** The limitations of Internal Revenue Code Section 415(b) and 401(a)(17) have been incorporated into our calculations.
- **IRC Section 416 rules for top-heavy plans:** We did not test whether this plan is top-heavy (when the present value of benefits for key employees equals or exceeds 60 percent of the present value for all participants). However, we expect that the plan is not top-heavy due to the large number of rank-and-file participants; therefore, the funding target and target normal cost do not reflect any liability for top-heavy benefit accruals.
- **IRC Section 436 benefit restrictions:**
  - *Unpredictable contingent event benefits:* This valuation excludes restricted contingent event benefits, because the likelihood of an event is de minimis.
  - *Prohibited payments:* Limitations on prohibited benefits (if any) are reflected for annuity starting dates before the valuation date but are ignored for annuity starting dates on or after the valuation date.
  - *Benefit accruals:* The plan's funding target does not reflect any limitation on benefit accruals. The target normal cost does not reflect any limitation on benefit accruals.

*Schedule SB, Part V — Summary of Plan Provisions*

**PLAN PROVISION CHANGES SINCE PRIOR VALUATION**

Maximum benefit amounts under IRS rules were updated from \$220,000 in 2018 to \$225,000 in 2019

*Schedule SB, line 24 — Change in Actuarial Assumptions*

- The expense components of normal cost increased from \$116,806 to \$150,000 to reflect our expectations for the current plan year.
- The expected return on assets assumption was updated from 7.10% in 2018 to 7.05% in 2019.

*Schedule SB, line 26 — Schedule of Active Participant Data*

| ATTAINED<br>AGE | YEARS OF CREDITED SERVICE |       |       |            |            |            |            |            |            |            |       |
|-----------------|---------------------------|-------|-------|------------|------------|------------|------------|------------|------------|------------|-------|
|                 | UNDER<br>1                | 1 – 4 | 5 – 9 | 10 –<br>14 | 15 –<br>19 | 20 –<br>24 | 25 –<br>29 | 30 –<br>34 | 35 –<br>39 | 40 &<br>UP | TOTAL |
| Under 25        |                           |       |       |            |            |            |            |            |            |            |       |
| 25–29           |                           |       |       |            |            |            |            |            |            |            |       |
| 30–34           |                           |       |       |            |            |            |            |            |            |            |       |
| 35–39           |                           |       |       |            |            |            |            |            |            |            |       |
| 40–44           |                           |       | 3     | 1          |            |            |            |            |            |            | 4     |
| 45–49           |                           |       | 2     | 1          |            |            |            |            |            |            | 3     |
| 50–54           |                           |       | 4     |            |            | 1          |            |            |            |            | 5     |
| 55–59           |                           |       | 1     | 4          | 2          | 3          |            |            |            |            | 10    |
| 60–64           |                           |       | 1     | 3          |            |            | 1          | 2          | 1          |            | 8     |
| 65–69           |                           |       | 2     |            |            |            |            | 1          | 1          |            | 4     |
| 70 & up         |                           |       |       |            |            |            |            |            |            |            |       |
| Total           |                           |       | 13    | 9          | 2          | 4          | 1          | 3          | 2          |            | 34    |

In each cell, the top number is the count of active participants for each age/service combination. Credited Service was frozen effective January 1, 2008 for all participants with the exception of Ashville union participants who were frozen effective February 1, 2008.

*Schedule SB, line 32 — Schedule of Amortization Bases*

The total shortfall amortization charge is the sum of the individual shortfall amortization installment for each plan year covered under PPA. Although an individual shortfall amortization installment can be negative, the combined shortfall amortization charge cannot be less than \$0.

| SHORTFALL BASES     |           |                        |                    |           |                     |
|---------------------|-----------|------------------------|--------------------|-----------|---------------------|
| YEAR<br>ESTABLISHED |           | OUTSTANDING<br>BALANCE | YEARS<br>REMAINING |           | 2019<br>INSTALLMENT |
| 2017                | \$        | 93,608                 | 5                  | \$        | 20,121              |
| 2018                |           | (30,482)               | 6                  |           | (5,621)             |
| 2019                |           | 261,407                | 7                  |           | 42,475              |
| <b>Total</b>        | <b>\$</b> | <b>324,533</b>         |                    | <b>\$</b> | <b>56,975</b>       |

*Schedule SB, line 22 — Description of Weighted Average Retirement Age*

Each employee is assumed to retire in accordance with the table of retirement rates. The proportion of employees expected to retire at each potential retirement age is shown below. The average retirement age is 63.

| Richmond members with less than 30 years of vesting service |                    |         |                                                     |           |
|-------------------------------------------------------------|--------------------|---------|-----------------------------------------------------|-----------|
| (A)                                                         | (B)                | (C)     | (D)                                                 | (E)       |
| Retirement age                                              | Retirement Percent | Lx      | Number of employees expected to retire<br>(B) x (C) | (A) x (D) |
| 55                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 56                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 57                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 58                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 59                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 60                                                          | 15.00%             | 100,000 | 15,000                                              | 900,000   |
| 61                                                          | 10.00%             | 85,000  | 8,500                                               | 518,500   |
| 62                                                          | 40.00%             | 76,500  | 30,600                                              | 1,897,200 |
| 63                                                          | 10.00%             | 45,900  | 4,590                                               | 289,170   |
| 64                                                          | 10.00%             | 41,310  | 4,131                                               | 264,384   |
| 65                                                          | 100.00%            | 37,179  | 37,179                                              | 2,416,635 |
| Total                                                       |                    |         | 100,000                                             | 6,285,889 |
| Average                                                     |                    |         |                                                     | 62.86     |

*Schedule SB, line 22 — Description of Weighted Average Retirement Age*

| Ashville members with less than 30 years of vesting service |                    |         |                                                     |           |
|-------------------------------------------------------------|--------------------|---------|-----------------------------------------------------|-----------|
| (A)                                                         | (B)                | (C)     | (D)                                                 | (E)       |
| Retirement age                                              | Retirement Percent | Lx      | Number of employees expected to retire<br>(B) x (C) | (A) x (D) |
| 55                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 56                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 57                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 58                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 59                                                          | 0.00%              | 100,000 | 0                                                   | 0         |
| 60                                                          | 15.00%             | 100,000 | 15,000                                              | 900,000   |
| 61                                                          | 10.00%             | 85,000  | 8,500                                               | 518,500   |
| 62                                                          | 25.00%             | 76,500  | 19,125                                              | 1,185,750 |
| 63                                                          | 10.00%             | 57,375  | 5,738                                               | 361,494   |
| 64                                                          | 10.00%             | 51,637  | 5,164                                               | 330,496   |
| 65                                                          | 100.00%            | 46,473  | 46,473                                              | 3,020,745 |
| Total                                                       |                    |         | 100,000                                             | 6,316,985 |
| Average                                                     |                    |         |                                                     | 63.17     |

*Schedule SB, line 22 — Description of Weighted Average Retirement Age*

| Employees with more than 30 years of vesting service |                    |         |                                                     |           |
|------------------------------------------------------|--------------------|---------|-----------------------------------------------------|-----------|
| (A)                                                  | (B)                | (C)     | (D)                                                 | (E)       |
| Retirement age                                       | Retirement Percent | Lx      | Number of employees expected to retire<br>(B) x (C) | (A) x (D) |
| 55                                                   | 5.00%              | 100,000 | 5,000                                               | 275,000   |
| 56                                                   | 5.00%              | 95,000  | 4,750                                               | 266,000   |
| 57                                                   | 5.00%              | 90,250  | 4,513                                               | 257,241   |
| 58                                                   | 5.00%              | 85,737  | 4,287                                               | 248,646   |
| 59                                                   | 5.00%              | 81,450  | 4,073                                               | 240,307   |
| 60                                                   | 10.00%             | 77,377  | 7,738                                               | 464,280   |
| 61                                                   | 10.00%             | 69,639  | 6,964                                               | 424,804   |
| 62                                                   | 40.00%             | 62,675  | 25,070                                              | 1,554,340 |
| 63                                                   | 10.00%             | 37,605  | 3,761                                               | 236,943   |
| 64                                                   | 10.00%             | 33,844  | 3,384                                               | 216,576   |
| 65                                                   | 100.00%            | 30,460  | 30,460                                              | 1,979,900 |
| Total                                                |                    |         | 100,000                                             | 6,164,037 |
| Average                                              |                    |         |                                                     | 61.64     |

Note: Column (D) is the product of columns (B) and (C). Column (E) is the product of columns (A) and (D). The average retirement age for each plan is the total from column (E) divided by the total from column (D). The final average retirement age is a weighted average of the average ages from the individual exhibits.

*Schedule SB, line 22 — Description of Weighted Average Retirement Age*

| Group                   | Number of Employees | Average Retirement Age | Number of Employees x Average Retirement Age |
|-------------------------|---------------------|------------------------|----------------------------------------------|
| Bellwood                | 5                   | 62.86                  | 314                                          |
| Ashville                | 19                  | 63.17                  | 1,200                                        |
| Employees >= 30 yrs svc | 10                  | 61.64                  | 616                                          |
| <b>Total</b>            | <b>34</b>           |                        | <b>2,130</b>                                 |
|                         |                     | <b>Average</b>         | <b>62.65</b>                                 |

*Schedule SB, Part V — Summary of Plan Provisions*

**SUMMARY OF MAJOR PLAN PROVISIONS**

|                                                  |                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Effective date and plan year                     | Original plan: May 23, 2003<br>Restated plan: January 1, 2015<br>Plan year: January 1 – December 31                                                                                                                                                                                                                                                                        |
| Status of the plan                               | Credited Service was frozen effective January 1, 2008 for all participants with the exception of Ashville union participants who were frozen effective February 1, 2008. New hires after September 1, 2001 for Richmond and February 1, 2001 for Ashville are not eligible to participate.                                                                                 |
| Significant events that occurred during the year | None                                                                                                                                                                                                                                                                                                                                                                       |
| <b>DEFINITIONS</b>                               |                                                                                                                                                                                                                                                                                                                                                                            |
| • Covered employees                              | An individual employed by the Employer or any other employer require to be aggregated with the Employer                                                                                                                                                                                                                                                                    |
| • Participation                                  | Bargaining employees who have attained age 21 with four calendar quarters of service at the Richmond Plant 44 location whose date of employment occurred prior to September 1, 2001 or a bargaining employee of the Ashville Ohio Plant Location whose date of employment occurred prior to February 1, 2001.                                                              |
| • Employee contributions                         | None.                                                                                                                                                                                                                                                                                                                                                                      |
| • Vesting service                                | All service is measured in full and fractional years on the basis that 365 days equals one year from the employee's hire date (reduced by any period of Severance).                                                                                                                                                                                                        |
| • Credited service                               | All service measured from the date of employment, expressed as the total number of calendar quarters in each of which the employee receives wages, disability benefits or workman's compensation. Credited Service was frozen effective January 1, 2008 for all participants with the exception of Ashville union participants who were frozen effective February 1, 2008. |
| • Accrued benefit                                | On any date, the amount of monthly retirement benefit accrued by an active participant.                                                                                                                                                                                                                                                                                    |

*Schedule SB, Part V — Summary of Plan Provisions*

| NORMAL RETIREMENT                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                         |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------|---------------------------------------------------------|--------|---------|---------|--------|---------|---------|---------|---------|---------|----------|---------|---------|----------|---------|---------|----------|---------|---------|------|---------|---------|
| <ul style="list-style-type: none"><li>Eligibility</li></ul> | <p>The first day of the month following or coincident with the earliest of:</p> <ul style="list-style-type: none"><li>The later of age 65 or 5 years of Credited Service</li><li>30 years of Vesting Service</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                         |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| <ul style="list-style-type: none"><li>Benefit</li></ul>     | <p><u>Richmond Location</u></p> <p>The sum of the pension factors from the appropriate wage grades times the service earned while in the wage grade, less the amount payable from any prior plan. Participants who retire between August 1, 2004 and August 1, 2006 are eligible for all the benefit increases in the bargaining period.</p> <table><tr><th>Pre-August 1, 2001<br/>wage grade</th><th>Service prior<br/>to August 1, 2001</th><th>Service between<br/>August 1, 2001 and<br/>August 1, 2004</th></tr><tr><td>1 to 4</td><td>\$33.25</td><td>\$39.25</td></tr><tr><td>5 to 8</td><td>\$34.55</td><td>\$40.55</td></tr><tr><td>9 to 12</td><td>\$35.90</td><td>\$41.90</td></tr><tr><td>13 to 16</td><td>\$37.25</td><td>\$43.25</td></tr><tr><td>17 to 20</td><td>\$38.55</td><td>\$44.55</td></tr><tr><td>21 to 24</td><td>\$39.90</td><td>\$45.90</td></tr><tr><td>25 +</td><td>\$41.25</td><td>\$47.25</td></tr></table> | Pre-August 1, 2001<br>wage grade                        | Service prior<br>to August 1, 2001 | Service between<br>August 1, 2001 and<br>August 1, 2004 | 1 to 4 | \$33.25 | \$39.25 | 5 to 8 | \$34.55 | \$40.55 | 9 to 12 | \$35.90 | \$41.90 | 13 to 16 | \$37.25 | \$43.25 | 17 to 20 | \$38.55 | \$44.55 | 21 to 24 | \$39.90 | \$45.90 | 25 + | \$41.25 | \$47.25 |
| Pre-August 1, 2001<br>wage grade                            | Service prior<br>to August 1, 2001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Service between<br>August 1, 2001 and<br>August 1, 2004 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 1 to 4                                                      | \$33.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$39.25                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 5 to 8                                                      | \$34.55                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$40.55                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 9 to 12                                                     | \$35.90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$41.90                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 13 to 16                                                    | \$37.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$43.25                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 17 to 20                                                    | \$38.55                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$44.55                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 21 to 24                                                    | \$39.90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$45.90                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |
| 25 +                                                        | \$41.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$47.25                                                 |                                    |                                                         |        |         |         |        |         |         |         |         |         |          |         |         |          |         |         |          |         |         |      |         |         |

*Schedule SB, Part V — Summary of Plan Provisions*

|            | Service on and after August 1, 2004 |                          |                          |
|------------|-------------------------------------|--------------------------|--------------------------|
| Wage Grade | Effective August 1, 2004            | Effective August 1, 2005 | Effective August 1, 2006 |
| 1 to 4     | \$41.25                             | \$43.25                  | \$45.25                  |
| 5 to 8     | \$42.55                             | \$44.55                  | \$46.55                  |
| 9 to 12    | \$43.90                             | \$45.90                  | \$47.90                  |
| 13 to 16   | \$45.25                             | \$47.25                  | \$49.25                  |
| 17 to 20   | \$46.55                             | \$48.55                  | \$50.55                  |
| 21 to 24   | \$47.90                             | \$49.90                  | \$51.90                  |
| 25 +       | \$49.25                             | \$51.25                  | \$53.25                  |

**Ashville Location**

Pension factor determined by employment date times service, less the amount payable from any prior plan. Participants who retire between May 23, 2003 and February 1, 2006 are eligible for all the benefit increases in the bargaining period.

| Service                       | Employment Prior to March 1, 1984 | Employment on and after March 1, 1984 |
|-------------------------------|-----------------------------------|---------------------------------------|
| Prior to February 1, 1998     | \$21.00                           | \$18.50                               |
| On and after February 1, 1998 | \$24.00                           | \$21.50                               |
| Effective February 1, 1999    | \$28.00                           | \$25.50                               |
| Effective February 1, 2000    | \$32.00                           | \$29.50                               |
| Effective February 1, 2001    | \$35.00                           | \$32.50                               |
| Effective February 1, 2002    | \$38.00                           | \$35.50                               |
| Effective February 1, 2003    | \$40.00                           | \$37.50                               |
| Effective February 1, 2004    | \$42.00                           | \$39.50                               |
| Effective February 1, 2005    | \$43.00                           | \$40.50                               |

*Schedule SB, Part V — Summary of Plan Provisions*

|                                                             | <p>If the participant is an active participant at retirement, the accrued benefit paid to a married participant receiving a 50% joint and survivor annuity will be reduced 50%</p> <p>If the participant is an inactive participant at retirement, the accrued benefit paid to a married participant receiving a 50% joint and survivor annuity will be reduced</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|--|------------------------------|-----------|----------------------------|-----------|------------|-----|--------|-----|----------|-----|--------|-----|----------|-----|--------|-----|----------|-----|---------|----|---------|-----|----------|----|--------|-----|----------|----|--------|-----|----------|----|--------|-----|------------|----|
|                                                             | <table><tr><th>Years that spouse is younger</th><th>Reduction</th><th>Years that spouse is older</th><th>Reduction</th></tr><tr><td>20 or more</td><td>23%</td><td>0 to 1</td><td>13%</td></tr><tr><td>17 to 19</td><td>22%</td><td>2 to 4</td><td>11%</td></tr><tr><td>14 to 16</td><td>21%</td><td>5 to 7</td><td>10%</td></tr><tr><td>11 to 13</td><td>19%</td><td>8 to 10</td><td>8%</td></tr><tr><td>8 to 10</td><td>18%</td><td>11 to 13</td><td>7%</td></tr><tr><td>5 to 7</td><td>16%</td><td>14 to 16</td><td>5%</td></tr><tr><td>2 to 4</td><td>15%</td><td>17 to 19</td><td>4%</td></tr><tr><td>0 to 1</td><td>13%</td><td>20 or more</td><td>3%</td></tr></table> <p>Pension benefits need to be reduced by the benefit payable under the Reynolds Metals Company Pension Plan prior to March 17, 1997 and the benefit payable under the Owens Corning merged retirement plan on May 22, 2003.</p> |                            |           |  | Years that spouse is younger | Reduction | Years that spouse is older | Reduction | 20 or more | 23% | 0 to 1 | 13% | 17 to 19 | 22% | 2 to 4 | 11% | 14 to 16 | 21% | 5 to 7 | 10% | 11 to 13 | 19% | 8 to 10 | 8% | 8 to 10 | 18% | 11 to 13 | 7% | 5 to 7 | 16% | 14 to 16 | 5% | 2 to 4 | 15% | 17 to 19 | 4% | 0 to 1 | 13% | 20 or more | 3% |
| Years that spouse is younger                                | Reduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Years that spouse is older | Reduction |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 20 or more                                                  | 23%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0 to 1                     | 13%       |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 17 to 19                                                    | 22%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2 to 4                     | 11%       |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 14 to 16                                                    | 21%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5 to 7                     | 10%       |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 11 to 13                                                    | 19%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8 to 10                    | 8%        |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 8 to 10                                                     | 18%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 11 to 13                   | 7%        |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 5 to 7                                                      | 16%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 14 to 16                   | 5%        |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 2 to 4                                                      | 15%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 17 to 19                   | 4%        |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 0 to 1                                                      | 13%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 20 or more                 | 3%        |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <b>SUPPLEMENTAL RETIREMENT BENEFIT</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Eligibility</li></ul> | <p>Richmond employees who have attained age 55 with 30 years of service.</p> <p><u>Form:</u> Monthly annuity payable until age 62.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |

*Schedule SB, Part V — Summary of Plan Provisions*

| <ul style="list-style-type: none"> <li>Benefit</li> </ul>     | <p>Amount determined by subtracting the amount of the accrued benefit from the graded minimum monthly benefit shown below:</p> <table> <tr> <th>Wage Grade</th><th>Graded Minimum Monthly Benefit</th></tr> <tr> <td>1 to 4</td><td>\$1,070</td></tr> <tr> <td>5 to 8</td><td>\$1,100</td></tr> <tr> <td>9 to 12</td><td>\$1,130</td></tr> <tr> <td>13 to 16</td><td>\$1,160</td></tr> <tr> <td>17 to 20</td><td>\$1,190</td></tr> <tr> <td>21 to 24</td><td>\$1,220</td></tr> <tr> <td>25+</td><td>\$1,250</td></tr> </table> <p>The supplemental amount is reduced by \$1 for each \$2 that earned income after retirement is over \$10,000 per year.</p> | Wage Grade | Graded Minimum Monthly Benefit | 1 to 4 | \$1,070 | 5 to 8 | \$1,100 | 9 to 12 | \$1,130 | 13 to 16 | \$1,160 | 17 to 20 | \$1,190 | 21 to 24 | \$1,220 | 25+ | \$1,250 |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------|---------|--------|---------|---------|---------|----------|---------|----------|---------|----------|---------|-----|---------|
| Wage Grade                                                    | Graded Minimum Monthly Benefit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 1 to 4                                                        | \$1,070                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 5 to 8                                                        | \$1,100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 9 to 12                                                       | \$1,130                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 13 to 16                                                      | \$1,160                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 17 to 20                                                      | \$1,190                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 21 to 24                                                      | \$1,220                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| 25+                                                           | \$1,250                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| <b>EARLY RETIREMENT</b>                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| <ul style="list-style-type: none"> <li>Eligibility</li> </ul> | <p>The first day of any month following attainment of age 60 and completion of 10 years of Vested Service.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |
| <ul style="list-style-type: none"> <li>Benefit</li> </ul>     | <p><b><u>Richmond Location</u></b></p> <p>Accrued benefit on early retirement date reduced 6% each year in which the early retirement date precedes age 62. No reduction applies after attaining age 62.</p> <p><b><u>Ashville Location</u></b></p> <p>Accrued benefit on early retirement date reduced 6% each year in which the early retirement date precedes age 65. The special retirement benefit will not become payable for an inactive participant until the month following age 65 or 30 years of employment.</p>                                                                                                                                 |            |                                |        |         |        |         |         |         |          |         |          |         |          |         |     |         |

*Schedule SB, Part V — Summary of Plan Provisions*

| SPECIAL EARLY RETIREMENT                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Eligibility</li> </ul> | <p><u>1. Richmond:</u> Employees who have been absent from service for 2 years due to a layoff, permanent shut-down, sickness or accident and attained age 55 with 10 years of service and age plus service equals 70 or 10 years of service and age plus service equals 80.</p> <p><u>2. Richmond:</u> Employees who have been absent from service for 2 years due to a layoff, permanent shut-down, sickness or accident and have twenty years of service and age plus service equals 65.</p> <p><u>3. Richmond:</u> Employees who have been absent from service for 3 years due to a layoff, permanent shut-down, sickness or accident and have attained age 55 with 10 years of service.</p> <p><u>4. Ashville:</u> Employees who have been absent from service for 2 years due to a layoff, permanent shut-down, sickness, or accident and have attained age 55 and 10 years of service.</p> <p><u>5. Ashville:</u> Employees who have been absent from service due to a layoff, permanent shut-down, sickness, or accident and attained age 55 with 10 years of service and age plus service equals 75 or 10 years of service and age plus service equals 80.</p> |
| <ul style="list-style-type: none"> <li>Benefit</li> </ul>     | <p><u>1. Richmond:</u> Accrued benefit at retirement plus the Special Retirement Benefit. A supplemental retirement benefit of \$400 per month will also be payable until attaining age 62.</p> <p><u>2. Richmond:</u> Accrued benefit at retirement plus the Special Retirement Benefit. A supplemental retirement benefit of \$400 per month, reduced by ½ of any earned income in excess of \$5500, will also be payable until attaining age 62.</p> <p><u>3. Richmond:</u> Accrued benefit at retirement plus the Special Retirement Benefit.</p> <p><u>4. Ashville:</u> Accrued benefit at retirement plus the Special Retirement Benefit.</p> <p><u>5. Ashville:</u> Accrued benefit at retirement plus the Special Retirement Benefit. A supplemental retirement benefit of \$100 per month will also be payable until attaining age 65 or receiving social security disability benefits.</p>                                                                                                                                                                                                                                                                    |

*Schedule SB, Part V — Summary of Plan Provisions*

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LATE RETIREMENT</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| • Eligibility               | Retirement after reaching normal retirement eligibility.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| • Benefit                   | Greater of accrued benefit on normal retirement date actuarially increased to late retirement date or accrued benefit on late retirement date.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>DEFERRED VESTED</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| • Eligibility               | 5 years of service or age 65.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| • Benefit                   | The participant's accrued benefit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>DISABILITY</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| • Eligibility               | Completion of 10 years of Credited Service and determination that participant is totally and permanently disabled.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| • Benefit                   | <p>Accrued benefit on date of disability.</p> <p><b><u>Richmond Location</u></b></p> <p>If the participant is less than attained age 62, accrued benefit on the date of disability (minimum \$400) plus a supplemental benefit of \$400 per month payable until attaining age 62 or Social Security Disability payments start.</p> <p><b><u>Ashville Location</u></b></p> <p>If the participant is not eligible for Social Security Disability payments, accrued benefit on the date of disability (minimum \$100) plus a supplemental benefit of \$100 per month payable until attaining age 62 or Social Security Disability payments start.</p> |
| <b>PRE-RETIREMENT DEATH</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| • Eligibility               | Partially or fully vested.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| • Benefit if active         | <p>Monthly annuity payable to spouse equal to 50% of the accrued benefit.</p> <p>If the participant was at the Richmond Location and had attained age 55 with 30 years of service at the date of death, the spouse will also receive 50% of the Supplemental Retirement Benefit, payable until the participant would have attained age 62.</p>                                                                                                                                                                                                                                                                                                     |

*Schedule SB, Part V — Summary of Plan Provisions*

| <ul style="list-style-type: none"><li>Benefit if inactive</li></ul>                       | Monthly annuity payable to spouse, deferred to attained age 60, equal to the amount that would have been paid had the participant terminated employment on the date of death and survived to his/her age 60, retired with a qualified joint and 50% survivor annuity in effect, then died the next day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|--|------------------------------|-----------|----------------------------|-----------|------------|-----|--------|-----|----------|-----|--------|-----|----------|-----|--------|-----|----------|-----|---------|----|---------|-----|----------|----|--------|-----|----------|----|--------|-----|----------|----|--------|-----|------------|----|
| FORM OF BENEFITS                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Automatic form for unmarried participants</li></ul> | Life annuity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Automatic form for married participants</li></ul>   | 50% joint and survivor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Optional forms</li></ul>                            | Life annuity<br>50% joint and survivor with pop-up<br>75% joint and survivor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Optional form conversion factors</li></ul>          | <p>The 50% joint and survivor with pop-up for active participants is equal to 95% of the life annuity. The 50% joint and survivor for inactive participants is based on the following factors:</p> <table><tr><th>Years that spouse is younger</th><th>Reduction</th><th>Years that spouse is older</th><th>Reduction</th></tr><tr><td>20 or more</td><td>23%</td><td>0 to 1</td><td>13%</td></tr><tr><td>17 to 19</td><td>22%</td><td>2 to 4</td><td>11%</td></tr><tr><td>14 to 16</td><td>21%</td><td>5 to 7</td><td>10%</td></tr><tr><td>11 to 13</td><td>19%</td><td>8 to 10</td><td>8%</td></tr><tr><td>8 to 10</td><td>18%</td><td>11 to 13</td><td>7%</td></tr><tr><td>5 to 7</td><td>16%</td><td>14 to 16</td><td>5%</td></tr><tr><td>2 to 4</td><td>15%</td><td>17 to 19</td><td>4%</td></tr><tr><td>0 to 1</td><td>13%</td><td>20 or more</td><td>3%</td></tr></table> |                            |           |  | Years that spouse is younger | Reduction | Years that spouse is older | Reduction | 20 or more | 23% | 0 to 1 | 13% | 17 to 19 | 22% | 2 to 4 | 11% | 14 to 16 | 21% | 5 to 7 | 10% | 11 to 13 | 19% | 8 to 10 | 8% | 8 to 10 | 18% | 11 to 13 | 7% | 5 to 7 | 16% | 14 to 16 | 5% | 2 to 4 | 15% | 17 to 19 | 4% | 0 to 1 | 13% | 20 or more | 3% |
| Years that spouse is younger                                                              | Reduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Years that spouse is older | Reduction |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 20 or more                                                                                | 23%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0 to 1                     | 13%       |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 17 to 19                                                                                  | 22%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2 to 4                     | 11%       |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 14 to 16                                                                                  | 21%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5 to 7                     | 10%       |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 11 to 13                                                                                  | 19%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 8 to 10                    | 8%        |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 8 to 10                                                                                   | 18%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 11 to 13                   | 7%        |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 5 to 7                                                                                    | 16%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 14 to 16                   | 5%        |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 2 to 4                                                                                    | 15%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 17 to 19                   | 4%        |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| 0 to 1                                                                                    | 13%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20 or more                 | 3%        |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
|                                                                                           | The other optional forms use Applicable Interest rate and Mortality found in Code Section 417(e)(3).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| MISCELLANEOUS                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |
| <ul style="list-style-type: none"><li>Maximum benefits</li></ul>                          | Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2019, the limit is \$225,000.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |           |  |                              |           |                            |           |            |     |        |     |          |     |        |     |          |     |        |     |          |     |         |    |         |     |          |    |        |     |          |    |        |     |          |    |        |     |            |    |

*Schedule SB, Part V — Summary of Plan Provisions*

|                                      |                                        |
|--------------------------------------|----------------------------------------|
| • Administration                     | Administered by the Benefits Committee |
| • Funding medium                     | Trust                                  |
| • Benefits not included in valuation | None                                   |

**Benefits Included or Excluded**

Unless noted below, all benefits provided by the plan are included in this valuation:

- **Plan amendments excluded:** Amendments adopted after the valuation date or effective after the current plan year are excluded from the valuation.
- **Late retirement increases:**
  - *Active participants:* The plan provides benefit suspension notices to participants who work beyond normal retirement; therefore, late retirement actuarial increases only apply to participants who defer retirement beyond age 70½.
  - *Deferred vested participants:* Current deferred vested participants over normal retirement age are not valued including the late retirement actuarial increase.
- **Internal Revenue Code limitations:** The limitations of Internal Revenue Code Section 415(b) and 401(a)(17) have been incorporated into our calculations.
- **IRC Section 416 rules for top-heavy plans:** We did not test whether this plan is top-heavy (when the present value of benefits for key employees equals or exceeds 60 percent of the present value for all participants). However, we expect that the plan is not top-heavy due to the large number of rank-and-file participants; therefore, the funding target and target normal cost do not reflect any liability for top-heavy benefit accruals.
- **IRC Section 436 benefit restrictions:**
  - *Unpredictable contingent event benefits:* This valuation excludes restricted contingent event benefits, because the likelihood of an event is de minimis.
  - *Prohibited payments:* Limitations on prohibited benefits (if any) are reflected for annuity starting dates before the valuation date but are ignored for annuity starting dates on or after the valuation date.
  - *Benefit accruals:* The plan's funding target does not reflect any limitation on benefit accruals. The target normal cost does not reflect any limitation on benefit accruals.

*Schedule SB, Part V — Summary of Plan Provisions*

**PLAN PROVISION CHANGES SINCE PRIOR VALUATION**

Maximum benefit amounts under IRS rules were updated from \$220,000 in 2018 to \$225,000 in 2019

**Aleris Retirement Plan for Bargained Employees**

**EIN # 27-1539745 Plan # 003**

**Schedule H, Line 4i – Schedule of Assets (Held at End of Year)**

**December 31, 2019**

| (a) | (b) Identity of Issue, Borrower,<br>Lessor, or Similar Party | (c) Description of Investment,<br>Including Maturity Date,<br>Rate of Interest, Collateral,<br>Par, or Maturity Value | (d) Cost            | (e) Current<br>Value |
|-----|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|
|     | <b>Interest-Bearing Cash</b>                                 |                                                                                                                       |                     |                      |
| *   | Wells Fargo Bank Collateralized Instl Bank Deposit           |                                                                                                                       | \$ 61,273           | \$ 61,273            |
|     | <b>Registered Investment Companies</b>                       |                                                                                                                       |                     |                      |
|     | Vanguard Institutional Index Fund                            | 1,733 shares                                                                                                          | 402,042             | 503,047              |
|     | American Funds Europacific Growth Fund                       | 7,139 shares                                                                                                          | 323,363             | 396,546              |
|     | Templeton Instl Foreign Small Company Fund                   | 9,893 shares                                                                                                          | 179,803             | 211,713              |
|     | DFA Emerging Markets Core Equity Fund                        | 7,678 shares                                                                                                          | 148,814             | 167,152              |
|     | Vanguard Mid-Cap Growth Index Fund                           | 2,682 shares                                                                                                          | 154,577             | 200,505              |
|     |                                                              |                                                                                                                       | <u>1,208,599</u>    | <u>1,478,963</u>     |
|     | <b>Commingled Funds</b>                                      |                                                                                                                       |                     |                      |
|     | Strategic Property Trust Fund of JPMC                        | 36,072 shares                                                                                                         | 353,428             | 369,004              |
|     | <b>Limited Partnership Interests</b>                         |                                                                                                                       |                     |                      |
|     | IR&M Long Government Credit Fund LLC                         | 103,432 shares                                                                                                        | 1,161,335           | 1,386,951            |
|     | Neuberger Berman U.S. Equity Index Putwrite Fund LLC         | 575,000 shares                                                                                                        | 467,824             | 538,113              |
|     | Frontier Small Cap Value Fund, L.P.                          | 105,500 shares                                                                                                        | 226,526             | 334,483              |
|     |                                                              |                                                                                                                       | <u>1,855,685</u>    | <u>2,259,547</u>     |
|     |                                                              |                                                                                                                       | <u>\$ 3,478,985</u> | <u>\$ 4,168,787</u>  |

\* Denotes a party-in-interest to the Plan.

*Schedule SB, line 32 — Schedule of Amortization Bases*

The total shortfall amortization charge is the sum of the individual shortfall amortization installment for each plan year covered under PPA. Although an individual shortfall amortization installment can be negative, the combined shortfall amortization charge cannot be less than \$0.

| SHORTFALL BASES     |           |                        |                    |           |                     |
|---------------------|-----------|------------------------|--------------------|-----------|---------------------|
| YEAR<br>ESTABLISHED |           | OUTSTANDING<br>BALANCE | YEARS<br>REMAINING |           | 2019<br>INSTALLMENT |
| 2017                | \$        | 93,608                 | 5                  | \$        | 20,121              |
| 2018                |           | (30,482)               | 6                  |           | (5,621)             |
| 2019                |           | 261,407                | 7                  |           | 42,475              |
| <b>Total</b>        | <b>\$</b> | <b>324,533</b>         |                    | <b>\$</b> | <b>56,975</b>       |

*Schedule SB, line 24 — Change in Actuarial Assumptions*

- The expense components of normal cost increased from \$116,806 to \$150,000 to reflect our expectations for the current plan year.
- The expected return on assets assumption was updated from 7.10% in 2018 to 7.05% in 2019.