# Form 5500

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

## Annual Return/Report of Employee Benefit Plan

This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6047(e), 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

**2015**

**This Form is Open to Public Inspection**

## Part I Annual Report Identification Information

For calendar plan year 2015 or fiscal plan year beginning 01/01/2015 and ending 12/31/2015

**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); or
- [X] a single-employer plan;
- [ ] a DFE (specify) ____

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

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

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

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

**1a** Name of plan
HOWMET CORP MUSKEGON COUNTY OPERATIONS HOURLY EMPLOYEES PENSION PLAN

**1b** Three-digit plan number (PN) ▶ 009

**1c** Effective date of plan 01/01/1977

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

HOWMET CORPORATION

C/O ALCOA INC.

201 ISABELLA STREET
PITTSBURGH, PA 15212-5858

201 ISABELLA STREET
PITTSBURGH, PA 15212-5858

**2b** Employer Identification Number (EIN)
13-2838093

**2c** Plan Sponsor's telephone number
412-553-4545

**2d** Business code (see instructions)
332900

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

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

| | | | |
|---|---|---|---|
| **SIGN HERE** | Filed with authorized/valid electronic signature. | 10/06/2016 | JOHN A KENNA, VP |
| | **Signature of plan administrator** | Date | Enter name of individual signing as plan administrator |
| **SIGN HERE** | Filed with authorized/valid electronic signature. | 10/06/2016 | JOHN A KENNA, VP |
| | **Signature of employer/plan sponsor** | Date | Enter name of individual signing as employer or plan sponsor |
| **SIGN HERE** | | | |
| | **Signature of DFE** | Date | Enter name of individual signing as DFE |

Preparer's name (including firm name, if applicable) and address (include room or suite number)

Preparer's telephone number

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

| | | | |
|---|---|---|---|
| **5** | Total number of participants at the beginning of the plan year | **5** | 1443 |
| **6** | Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines **6a(1), 6a(2), 6b, 6c,** and **6d**). | | |
| **a(1)** | Total number of active participants at the beginning of the plan year | **6a(1)** | 424 |
| **a(2)** | Total number of active participants at the end of the plan year | **6a(2)** | 380 |
| **b** | Retired or separated participants receiving benefits | **6b** | 594 |
| **c** | Other retired or separated participants entitled to future benefits | **6c** | 248 |
| **d** | Subtotal. Add lines **6a(2)**, **6b**, and **6c**. | **6d** | 1222 |
| **e** | Deceased participants whose beneficiaries are receiving or are entitled to receive benefits. | **6e** | 63 |
| **f** | Total. Add lines **6d** and **6e**. | **6f** | 1285 |
| **g** | Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) | **6g** | |
| **h** | Number of participants that terminated employment during the plan year with accrued benefits that were less than 100% vested | **6h** | 0 |
| **7** | Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item) | **7** | |

**8a** If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:
1B 3H

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

**9a** Plan funding arrangement (check all that apply)

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

**9b** Plan benefit arrangement (check all that apply)

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

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

**a Pension Schedules**

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

**b General Schedules**

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

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

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

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

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

**11c** Enter the Receipt Confirmation Code for the 2015 Form M-1 annual report. If the plan was not required to file the 2015 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code_____

# SCHEDULE SB (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

# Single-Employer Defined Benefit Plan Actuarial Information

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

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

OMB No. 1210-0110

**2015**

**This Form is Open to Public Inspection**

For calendar plan year 2015 or fiscal plan year beginning 01/01/2015 and ending 12/31/2015

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

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

**A** Name of plan
HOWMET CORP MUSKEGON COUNTY OPERATIONS HOURLY EMPLOYEES PENSION PLAN

**B** Three-digit plan number (PN) ▶ 009

**C** Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
HOWMET CORPORATION

**D** Employer Identification Number (EIN)
13-2838093

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

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

## Part I Basic Information

**1** Enter the valuation date: Month 01 Day 01 Year 2015

**2** Assets:

| | | |
|---|---|---|
| **a** Market value | **2a** | 94636212 |
| **b** Actuarial value | **2b** | 91223664 |

**3** Funding target/participant count breakdown

| | (1) Number of participants | (2) Vested Funding Target | (3) Total Funding Target |
|---|---|---|---|
| **a** For retired participants and beneficiaries receiving payment | 665 | 46001790 | 46001790 |
| **b** For terminated vested participants | 287 | 6967094 | 6967094 |
| **c** For active participants | 409 | 45289662 | 45950475 |
| **d** Total | 1361 | 98258546 | 98919359 |

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

| | | |
|---|---|---|
| **a** Funding target disregarding prescribed at-risk assumptions | **4a** | |
| **b** Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor | **4b** | |
| **5** Effective interest rate | **5** | 6.26% |
| **6** Target normal cost | **6** | 2057935 |

**Statement by Enrolled Actuary**

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

**SIGN HERE**

Signature of actuary — Date: 09/29/2016

JOY M. SHINSKY — Type or print name of actuary

14-08319 — Most recent enrollment number

BUCK CONSULTANTS, LLC — Firm name

412-281-2506 — Telephone number (including area code)

11 STANWIX STREET, SUITE 700
PITTSBURGH, PA 15222-1312

Address of the firm

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

## Part II Beginning of Year Carryover and Prefunding Balances

| | | (a) Carryover balance | (b) Prefunding balance |
|---|---|---|---|
| 7 | Balance at beginning of prior year after applicable adjustments (line 13 from prior year) | 0 | 0 |
| 8 | Portion elected for use to offset prior year's funding requirement (line 35 from prior year) | 0 | 0 |
| 9 | Amount remaining (line 7 minus line 8) | 0 | 0 |
| 10 | Interest on line 9 using prior year's actual return of 17.98% | 0 | 0 |
| 11 | Prior year's excess contributions to be added to prefunding balance: | | |
| | a Present value of excess contributions (line 38a from prior year) | | 43 |
| | b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of 6.46% | | 3 |
| | b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return | | 0 |
| | c Total available at beginning of current plan year to add to prefunding balance | | 46 |
| | d Portion of (c) to be added to prefunding balance | | 0 |
| 12 | Other reductions in balances due to elections or deemed elections | 0 | 0 |
| 13 | Balance at beginning of current year (line 9 + line 10 + line 11d – line 12) | 0 | 0 |

## Part III Funding Percentages

| | | | |
|---|---|---|---|
| 14 | Funding target attainment percentage | 14 | 92.22 % |
| 15 | Adjusted funding target attainment percentage | 15 | 91.04 % |
| 16 | Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement | 16 | 90.39 % |
| 17 | If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage | 17 | % |

## Part IV Contributions and Liquidity Shortfalls

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

| (a) Date (MM-DD-YYYY) | (b) Amount paid by employer(s) | (c) Amount paid by employees | (a) Date (MM-DD-YYYY) | (b) Amount paid by employer(s) | (c) Amount paid by employees |
|---|---|---|---|---|---|
| 04/15/2015 | 1227514 | 0 | 07/15/2015 | 1227514 | 0 |
| 07/15/2015 | 1227514 | 0 | 10/15/2015 | 1227514 | 0 |
| 10/15/2015 | 1227514 | 0 | 01/15/2016 | 1227514 | 0 |
| 01/15/2016 | 1227514 | 0 | 09/15/2016 | 313000 | 0 |
| 09/15/2016 | 313000 | 0 | | | |
| 04/15/2015 | 1227514 | 0 | | | |
| | | | Totals ► 18(b) | 10446112 | 18(c) 0 |

| | | | |
|---|---|---|---|
| 19 | Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year: | | |
| | a Contributions allocated toward unpaid minimum required contributions from prior years | 19a | 0 |
| | b Contributions made to avoid restrictions adjusted to valuation date | 19b | 0 |
| | c Contributions allocated toward minimum required contribution for current year adjusted to valuation date | 19c | 4999777 |

20 Quarterly contributions and liquidity shortfalls:

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

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

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

Liquidity shortfall as of end of quarter of this plan year

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

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

**21** Discount rate:

**a** Segment rates:

| 1st segment: | 2nd segment: | 3rd segment: | |
|---|---|---|---|
| 4.72 % | 6.11 % | 6.81 % | ☐ N/A, full yield curve used |

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

**23** Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

## Part VI Miscellaneous Items

| | | |
|---|---|---|
| **24** Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment. | ☒ Yes | ☐ No |
| **25** Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment. | ☐ Yes | ☒ No |
| **26** Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. | ☒ Yes | ☐ No |

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

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

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

## Part VIII Minimum Required Contribution For Current Year

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

| | | |
|---|---|---|
| **a** Target normal cost (line 6) | **31a** | 2057935 |
| **b** Excess assets, if applicable, but not greater than line 31a | **31b** | 0 |

**32** Amortization installments:

| | Outstanding Balance | Installment |
|---|---|---|
| **a** Net shortfall amortization installment | 7695695 | 2941367 |
| **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** | 4999302 |

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

| | | |
|---|---|---|
| **36** Additional cash requirement (line 34 minus line 35) | **36** | 4999302 |
| **37** Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c) | **37** | 4999777 |

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

| | | |
|---|---|---|
| **a** Total (excess, if any, of line 37 over line 36) | **38a** | 475 |
| **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

| | | |
|---|---|---|
| **42** Amount of acceleration adjustment | **42** | 0 |
| **43** Excess installment acceleration amount to be carried over to future plan years | **43** | 0 |

| SCHEDULE C (Form 5500) | Service Provider Information | OMB No. 1210-0110 |
|---|---|---|
| Department of the Treasury<br>Internal Revenue Service | This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). | 2015 |
| Department of Labor<br>Employee Benefits Security Administration | ▶ File as an attachment to Form 5500. | This Form is Open to Public Inspection. |
| Pension Benefit Guaranty Corporation | | |

For calendar plan year 2015 or fiscal plan year beginning 01/01/2015 and ending 12/31/2015

| A Name of plan | B Three-digit plan number (PN) ▶ | |
|---|---|---|
| HOWMET CORP MUSKEGON COUNTY OPERATIONS HOURLY EMPLOYEES PENSION PLAN | | 009 |
| C Plan sponsor's name as shown on line 2a of Form 5500 | D Employer Identification Number (EIN) | |
| HOWMET CORPORATION | 13-2838093 | |

## Part I Service Provider Information (see instructions)

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

### 1 Information on Persons Receiving Only Eligible Indirect Compensation

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

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

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

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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)

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

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

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

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

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

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

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

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

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

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

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

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

## Part I Service Provider Information (continued)

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

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

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

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

## Part II Service Providers Who Fail or Refuse to Provide Information

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

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

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

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

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

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

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

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

(complete as many entries as needed)

**a** Name: MARY P. MITCHELL
**b** EIN: 13-3954297
**c** Position: ENROLLED ACTUARY
**d** Address: 11 STANWIX STREET, SUITE 700
PITTSBURGH, PA 15222-1312
**e** Telephone: 412-281-2506

Explanation: ENROLLED ACTUARY REASSIGNED WITHIN BUCK CONSULTANTS

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

Explanation:

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

Explanation:

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

Explanation:

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

Explanation:

# SCHEDULE D (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

## DFE/Participating Plan Information

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

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

OMB No. 1210-0110

**2015**

**This Form is Open to Public Inspection.**

For calendar plan year 2015 or fiscal plan year beginning 01/01/2015 and ending 12/31/2015

**A** Name of plan
HOWMET CORP MUSKEGON COUNTY OPERATIONS HOURLY EMPLOYEES PENSION PLAN

**B** Three-digit plan number (PN) ▶ 009

**C** Plan or DFE sponsor's name as shown on line 2a of Form 5500
HOWMET CORPORATION

**D** Employer Identification Number (EIN)
13-2838093

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

**a** Name of MTIA, CCT, PSA, or 103-12 IE: ALCOA INC RETIREMENT PLAN MASTER TR

**b** Name of sponsor of entity listed in (a): ALCOA INC

| **c** EIN-PN | **d** Entity code | **e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) |
|---|---|---|
| 25-0317820-038 | M | 84206653 |

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

**a** Plan name

| **b** Name of plan sponsor | **c** EIN-PN |
|---|---|

# SCHEDULE H (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

# Financial Information

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

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

OMB No. 1210-0110

**2015**

**This Form is Open to Public Inspection**

For calendar plan year 2015 or fiscal plan year beginning 01/01/2015 and ending 12/31/2015

**A** Name of plan
HOWMET CORP MUSKEGON COUNTY OPERATIONS HOURLY EMPLOYEES PENSION PLAN

**B** Three-digit plan number (PN) ▶ 009

**C** Plan sponsor's name as shown on line 2a of Form 5500
HOWMET CORPORATION

**D** Employer Identification Number (EIN)
13-2838093

## Part I Asset and Liability Statement

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

| Assets | | (a) Beginning of Year | (b) End of Year |
|---|---|---|---|
| **a** Total noninterest-bearing cash | 1a | | |
| **b** Receivables (less allowance for doubtful accounts): | | | |
| **(1)** Employer contributions | 1b(1) | 2472398 | 1540514 |
| **(2)** Participant contributions | 1b(2) | | |
| **(3)** Other | 1b(3) | | |
| **c** General investments: | | | |
| **(1)** Interest-bearing cash (include money market accounts & certificates of deposit) | 1c(1) | | |
| **(2)** U.S. Government securities | 1c(2) | | |
| **(3)** Corporate debt instruments (other than employer securities): | | | |
| **(A)** Preferred | 1c(3)(A) | | |
| **(B)** All other | 1c(3)(B) | | |
| **(4)** Corporate stocks (other than employer securities): | | | |
| **(A)** Preferred | 1c(4)(A) | | |
| **(B)** Common | 1c(4)(B) | | |
| **(5)** Partnership/joint venture interests | 1c(5) | | |
| **(6)** Real estate (other than employer real property) | 1c(6) | | |
| **(7)** Loans (other than to participants) | 1c(7) | | |
| **(8)** Participant loans | 1c(8) | | |
| **(9)** Value of interest in common/collective trusts | 1c(9) | | |
| **(10)** Value of interest in pooled separate accounts | 1c(10) | | |
| **(11)** Value of interest in master trust investment accounts | 1c(11) | 92264372 | 84206653 |
| **(12)** Value of interest in 103-12 investment entities | 1c(12) | | |
| **(13)** Value of interest in registered investment companies (e.g., mutual funds) | 1c(13) | | |
| **(14)** Value of funds held in insurance company general account (unallocated contracts) | 1c(14) | | |
| **(15)** Other | 1c(15) | | |

| | | | (a) Beginning of Year | (b) End of Year |
|---|---|---|---|---|
| **1d** | Employer-related investments: | | | |
| | **(1)** Employer securities | 1d(1) | | |
| | **(2)** Employer real property | 1d(2) | | |
| **e** | Buildings and other property used in plan operation | 1e | | |
| **f** | Total assets (add all amounts in lines 1a through 1e) | 1f | 94736770 | 85747167 |
| | **Liabilities** | | | |
| **g** | Benefit claims payable | 1g | | |
| **h** | Operating payables | 1h | 31063 | 24650 |
| **i** | Acquisition indebtedness | 1i | | |
| **j** | Other liabilities | 1j | | |
| **k** | Total liabilities (add all amounts in lines 1g through1j) | 1k | 31063 | 24650 |
| | **Net Assets** | | | |
| **l** | Net assets (subtract line 1k from line 1f) | 1l | 94705707 | 85722517 |

## Part II Income and Expense Statement

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

| | Income | | (a) Amount | (b) Total |
|---|---|---|---|---|
| **a** | **Contributions:** | | | |
| | **(1)** Received or receivable in cash from: **(A)** Employers | 2a(1)(A) | 5223056 | |
| | **(B)** Participants | 2a(1)(B) | | |
| | **(C)** Others (including rollovers) | 2a(1)(C) | | |
| | **(2)** Noncash contributions | 2a(2) | | |
| | **(3)** Total contributions. Add lines **2a(1)(A), (B), (C),** and line **2a(2)** | 2a(3) | | 5223056 |
| **b** | **Earnings on investments:** | | | |
| | **(1)** Interest: | | | |
| | **(A)** Interest-bearing cash (including money market accounts and certificates of deposit) | 2b(1)(A) | | |
| | **(B)** U.S. Government securities | 2b(1)(B) | | |
| | **(C)** Corporate debt instruments | 2b(1)(C) | | |
| | **(D)** Loans (other than to participants) | 2b(1)(D) | | |
| | **(E)** Participant loans | 2b(1)(E) | | |
| | **(F)** Other | 2b(1)(F) | | |
| | **(G)** Total interest. Add lines **2b(1)(A)** through **(F)** | 2b(1)(G) | | 0 |
| | **(2)** Dividends: **(A)** Preferred stock | 2b(2)(A) | | |
| | **(B)** Common stock | 2b(2)(B) | | |
| | **(C)** Registered investment company shares (e.g. mutual funds) | 2b(2)(C) | | |
| | **(D)** Total dividends. Add lines **2b(2)(A)**, **(B)**, and **(C)** | 2b(2)(D) | | 0 |
| | **(3)** Rents | 2b(3) | | |
| | **(4)** Net gain (loss) on sale of assets: **(A)** Aggregate proceeds | 2b(4)(A) | | |
| | **(B)** Aggregate carrying amount (see instructions) | 2b(4)(B) | | |
| | **(C)** Subtract line **2b(4)(B)** from line **2b(4)(A)** and enter result | 2b(4)(C) | | 0 |
| | **(5)** Unrealized appreciation (depreciation) of assets: **(A)** Real estate | 2b(5)(A) | | |
| | **(B)** Other | 2b(5)(B) | | |
| | **(C)** Total unrealized appreciation of assets. Add lines **2b(5)(A)** and **(B)** | 2b(5)(C) | | 0 |

| | | (a) Amount | (b) Total |
|---|---|---|---|
| (6) Net investment gain (loss) from common/collective trusts | 2b(6) | | |
| (7) Net investment gain (loss) from pooled separate accounts | 2b(7) | | |
| (8) Net investment gain (loss) from master trust investment accounts | 2b(8) | | -1019877 |
| (9) Net investment gain (loss) from 103-12 investment entities | 2b(9) | | |
| (10) Net investment gain (loss) from registered investment companies (e.g., mutual funds) | 2b(10) | | |
| c Other income | 2c | | |
| d Total income. Add all **income** amounts in column (b) and enter total | 2d | | 4203179 |
| **Expenses** | | | |
| e Benefit payment and payments to provide benefits: | | | |
| (1) Directly to participants or beneficiaries, including direct rollovers | 2e(1) | 12384545 | |
| (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) | | 12384545 |
| 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) | 155349 | |
| (2) Contract administrator fees | 2i(2) | | |
| (3) Investment advisory and management fees | 2i(3) | | |
| (4) Other | 2i(4) | 646475 | |
| (5) Total administrative expenses. Add lines **2i(1)** through **(4)** | 2i(5) | | 801824 |
| j Total expenses. Add all **expense** amounts in column (b) and enter total | 2j | | 13186369 |
| **Net Income and Reconciliation** | | | |
| k Net income (loss). Subtract line **2j** from line **2d** | 2k | | -8983190 |
| l Transfers of assets: | | | |
| (1) To this plan | 2l(1) | | |
| (2) From this plan | 2l(2) | | |

## Part III Accountant's Opinion

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

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

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

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

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

**(1)** Name: PRICEWATERHOUSECOOPERS LLC **(2)** EIN: 13-4008324

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

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

## Part IV Compliance Questions

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

During the plan year:

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

| | | Yes | No | N/A | Amount |
|---|---|---|---|---|---|
| c | Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.) | 4c | | X | | |
| d | Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.) | 4d | | X | | |
| e | Was this plan covered by a fidelity bond? | 4e | X | | | 25000000 |
| f | Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty? | 4f | | X | | |
| g | Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser? | 4g | | X | | |
| h | Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser? | 4h | | X | | |
| i | Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.) | 4i | X | | | |
| j | Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.) | 4j | | X | | |
| k | Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC? | 4k | | X | | |
| l | Has the plan failed to provide any benefit when due under the plan? | 4l | | X | | |
| m | If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.) | 4m | | X | | |
| n | If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3. | 4n | | | | |
| o | Did the plan trust incur unrelated business taxable income? | 4o | | X | | |
| p | Were in-service distributions made during the plan year? | 4p | | X | | |

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

**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

## Part V Trust Information

| **6a** Name of trust | **6b** Trust's EIN |
|---|---|
| | |

| **6c** Name of trustee or custodian | **6d** Trustee's or custodian's telephone number |
|---|---|
| | |

# SCHEDULE R (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

## Retirement Plan Information

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

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

OMB No. 1210-0110

**2015**

**This Form is Open to Public Inspection.**

For calendar plan year 2015 or fiscal plan year beginning 01/01/2015 and ending 12/31/2015

**A** Name of plan
HOWMET CORP MUSKEGON COUNTY OPERATIONS HOURLY EMPLOYEES PENSION PLAN

**B** Three-digit plan number (PN) ▶ 009

**C** Plan sponsor's name as shown on line 2a of Form 5500
HOWMET CORPORATION

**D** Employer Identification Number (EIN)
13-2838093

## 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**

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

EIN(s): 25-1926855

**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** 45

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

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

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

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

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

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

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

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

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

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

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

## Part III Amendments

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

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

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

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

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

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

## Part V Additional Information for Multiemployer Defined Benefit Pension Plans

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

**a** Name of contributing employer

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

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

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

---

**a** Name of contributing employer

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

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

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

---

**a** Name of contributing employer

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

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

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

---

**a** Name of contributing employer

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

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

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

---

**a** Name of contributing employer

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

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

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

---

**a** Name of contributing employer

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

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

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

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

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

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

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

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

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

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

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

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

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

**a** Enter the percentage of plan assets held as:
Stock: 25% Investment-Grade Debt: 42% High-Yield Debt: 0% Real Estate: 4% Other: 29%

**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):

## Part VII IRS Compliance Questions

| | | |
|---|---|---|
| **20a** Is the plan a 401(k) plan? | ☐ Yes | ☐ No |
| **20b** If "Yes," how does the 401(k) plan satisfy the nondiscrimination requirements for employee deferrals and employer matching contributions (as applicable) under sections 401(k)(3) and 401(m)(2)? | ☐ Design-based safe harbor method | ☐ ADP/ACP test |
| **20c** If the ADP/ACP test is used, did the 401(k) plan perform ADP/ACP testing for the plan year using the "current year testing method" for nonhighly compensated employees (Treas. Reg sections 1.401(k)-2(a)(2)(ii) and 1.401(m)-2(a)(2)(ii))? | ☐ Yes | ☐ No |
| **21a** Check the box to indicate the method used by the plan to satisfy the coverage requirements under section 410(b): | ☐ Ratio percentage test | ☐ Average benefit test |
| **21b** Does the plan satisfy the coverage and nondiscrimination tests of sections 410(b) and 401(a)(4) by combining this plan with any other plans under the permissive aggregation rules? | ☐ Yes | ☐ No |
| **22a** Has the plan been timely amended for all required tax law changes? | ☐ Yes | ☐ No ☐ N/A |

**22b** Date the last plan amendment/restatement for the required tax law changes was adopted ____/____/____. Enter the applicable code _____ (See instructions for tax law changes and codes).

**22c** If the plan sponsor is an adopter of a pre-approved master and prototype (M&P) or volume submitter plan that is subject to a favorable IRS opinion or advisory letter, enter the date of that favorable letter _____/_____/_____ and the letter's serial number _____.

**22d** If the plan is an individually-designed plan and received a favorable determination letter from the IRS, enter the date of the plan's last favorable determination letter _____/_____/_____.

| | | |
|---|---|---|
| **23** Is the Plan maintained in a U.S. territory (i.e., Puerto Rico (if no election under ERISA section 1022(i)(2) has been made), American Samoa, Guam, the Commonwealth of the Northern Mariana Islands or the U.S. Virgin Islands)? | ☐ Yes | ☐ No |

# Employees' Retirement Plans of Alcoa Inc. and Subsidiary Companies

**Financial Statements**
**December 31, 2015 and 2014**

# Employees' Retirement Plans of Alcoa Inc. and Subsidiary Companies
## Index


**Page(s)**

**Independent Auditor's Report** ..... 1–2

**Employees' Retirement Plans of Alcoa Inc. and Subsidiary Companies**
Employees' Retirement Plan of Alcoa Inc. Plan I (Alcoa Salary Plan)
Employees' Retirement Plan of Alcoa Inc. Plan II (Alcoa Hourly Plan)
Alcoa Subsidiaries Merged Inactive Pension Plan (Alcoa Subsidiaries Merged Inactive Plan)
Employees' Retirement Plan of Suriname Aluminum Company LLC Plan I (Suriname Plan I)
Employees' Retirement Plan of Suriname Aluminum Company LLC Plan II (Suriname Plan II)
Howmet Corporation Muskegon County Operations Hourly Employees' Pension Plan (Muskegon Plan)
Howmet Corporation Pension Plan (Howmet Plan)
Huck International Inc., Retirement Plan (Huck Plan)

**Financial Statements**

Statements of Individual Plan Net Assets Available for Benefits
December 31, 2015 ..... 3

Statements of Individual Plan Net Assets Available for Benefits
December 31, 2014 ..... 4

Statements of Changes in Individual Plan Net Assets Available for Benefits
Year Ended December 31, 2015 ..... 5

Statements of Changes in Individual Plan Net Assets Available for Benefits
Year Ended December 31, 2014 ..... 6

Notes to Financial Statements
December 31, 2015 and 2014 ..... 7–24

**Independent Auditor's Report**

To the Administrator of
Employees' Retirement Plan of Alcoa Inc. Plan I
Employees' Retirement Plan of Alcoa Inc. Plan II
Alcoa Subsidiaries Merged Inactive Pension Plan
Employees' Retirement Plan of Suriname Aluminum Company LLC Plan I
Employees' Retirement Plan of Suriname Aluminum Company LLC Plan II
Howmet Corporation Muskegon County Operations Hourly Employees' Pension Plan
Howmet Corporation Pension Plan
Huck International Inc., Retirement Plant

**Report on the Financial Statements**

We were engaged to audit the accompanying financial statements of the Alcoa Retirement Plan I (Alcoa Salary Plan), Alcoa Retirement Plan II (Alcoa Hourly Plan), Alcoa Subsidiaries Merged Inactive Plan (Alcoa Subsidiaries Merged Inactive Plan), Employees' Retirement Plan of Suriname Aluminum Company for Employees in Suriname Plan I (Suriname Plan I), Employees' Retirement Plan of Suriname Aluminum Company for Employees in Suriname Plan II (Suriname Plan II), Huck International Inc., Retirement Plan (Huck Plan), Howmet Corporation Muskegon County Operations Hourly Employees' Pension Plan (Muskegon Plan), and the Howmet Corporation Pension Plan (Howmet Plan) (each referred to as a "Plan"), which comprise the statements of individual plan net assets available for benefits as of December 31, 2015 and 2014, and the related statements of changes in individual plan 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 the 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 the financial statements based on conducting the audit in accordance with auditing standards generally accepted in the United States of America. Because of the matter described in the Basis for Disclaimer of Opinion paragraph, however, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion.

***Basis for Disclaimer of Opinion***

As permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974, the plan administrator instructed us not to perform, and we did not perform, any auditing procedures with respect to the information summarized in Note 8, which was certified by Bank of New York Mellon, the trustee of the Plan, except for comparing such information with the related information included in the financial statements. We have been informed by the plan administrator that the trustee holds the Plan's investment assets and executes investment transactions. The plan administrator has obtained certifications from the trustee as of December 31, 2015 and December 31, 2014 and for the years then ended, that the information provided to the plan administrator by the trustee is complete and accurate.

***Disclaimer of Opinion***

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

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

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

PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania
October 3, 2016

# Employees' Retirement Plans of Alcoa Inc. and Subsidiary Companies
## Statements of Individual Plan Net Assets Available for Benefits
## December 31, 2015

| | Alcoa Salary Plan | Alcoa Hourly Plan | Alcoa Subsidiaries Merged Inactive Plan | Suriname Plan I | Suriname Plan II | Huck Plan | Muskegon Plan | Howmet Plan | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Assets** | | | | | | | | | |
| Plans' interest in Alcoa Inc. Retirement Plans' Master Trust at fair value (Notes 2 and 3) | $ 3,661,163,191 | $ 3,498,601,681 | $ 320,329,023 | $ 133,595,160 | $ 88,705,783 | $ 18,184,461 | $ 84,206,653 | $ 111,620,811 | $ 7,916,406,763 |
| Employer contributions receivable | 49,367,000 | 2,412,000 | 4,884,164 | - | 540,365 | - | 1,540,514 | 314,000 | 59,058,043 |
| Total assets | 3,710,530,191 | 3,501,013,681 | 325,213,187 | 133,595,160 | 89,246,148 | 18,184,461 | 85,747,167 | 111,934,811 | 7,975,464,806 |
| **Liabilities** | | | | | | | | | |
| Administrative expenses payable | 542,552 | 617,109 | 133,807 | 27,219 | 44,892 | 18,540 | 24,650 | 33,917 | 1,442,686 |
| Total liabilities | 542,552 | 617,109 | 133,807 | 27,219 | 44,892 | 18,540 | 24,650 | 33,917 | 1,442,686 |
| Net assets available for benefits | $ 3,709,987,639 | $ 3,500,396,572 | $ 325,079,380 | $ 133,567,941 | $ 89,201,256 | $ 18,165,921 | $ 85,722,517 | $ 111,900,894 | $ 7,974,022,120 |

The accompanying notes are an integral part of these financial statements.

# Employees' Retirement Plans of Alcoa Inc. and Subsidiary Companies
## Statements of Individual Plan Net Assets Available for Benefits
## December 31, 2014

| | Alcoa Salary Plan | Alcoa Hourly Plan | Alcoa Subsidiaries Merged Inactive Plan | Suriname Plan I | Suriname Plan II | Huck Plan | Muskegon Plan | Howmet Plan | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Assets** | | | | | | | | | |
| Plans' interest in Alcoa Inc. Retirement Plans' Master Trust at fair value (Notes 2 and 3) | $ 4,003,047,248 | $ 3,882,812,794 | $ 343,960,036 | $ 147,400,658 | $ 98,057,083 | $ 19,738,064 | $ 92,264,372 | $ 117,782,207 | $ 8,705,062,462 |
| Employer contributions receivable | 87,569,915 | 78,452,989 | 7,119,856 | - | - | - | 2,472,398 | 2,865,631 | 178,480,789 |
| Total assets | 4,090,617,163 | 3,961,265,783 | 351,079,892 | 147,400,658 | 98,057,083 | 19,738,064 | 94,736,770 | 120,647,838 | 8,883,543,251 |
| **Liabilities** | | | | | | | | | |
| Amount due to successor trustee | 62,016,882 | 55,058,886 | - | - | - | - | - | - | 117,075,768 |
| Administrative expenses payable | 1,026,150 | 1,284,668 | 130,090 | 11,264 | 17,202 | 11,598 | 31,063 | 64,941 | 2,576,976 |
| Total liabilities | 63,043,032 | 56,343,554 | 130,090 | 11,264 | 17,202 | 11,598 | 31,063 | 64,941 | 119,652,744 |
| Net assets available for benefits | $ 4,027,574,131 | $ 3,904,922,229 | $ 350,949,802 | $ 147,389,394 | $ 98,039,881 | $ 19,726,466 | $ 94,705,707 | $ 120,582,897 | $ 8,763,890,507 |

The accompanying notes are an integral part of these financial statements.

# Employees' Retirement Plans of Alcoa Inc. and Subsidiary Companies
## Statements of Changes in Individual Plan Net Assets Available for Benefits
## Year Ended December 31, 2015

| | Alcoa Salary Plan | Alcoa Hourly Plan | Alcoa Subsidiaries Merged Inactive Plan | Suriname Plan I | Suriname Plan II | Huck Plan | Muskegon Plan | Howmet Plan | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Additions** | | | | | | | | | |
| Employer contributions | $ 178,914,401 | $ 55,712,000 | $ 13,536,656 | $ - | $ 1,927,460 | $ - | $ 5,223,056 | $ 4,274,298 | $ 259,587,871 |
| **Deductions** | | | | | | | | | |
| Plans' interest in Alcoa Inc. Retirement Plans' Master Trust investment loss | 45,738,764 | 43,598,181 | 4,114,501 | 1,768,938 | 1,175,196 | 234,084 | 1,019,877 | 1,405,786 | 99,055,327 |
| Benefit payments | 430,530,167 | 393,567,090 | 31,488,556 | 11,841,016 | 9,252,004 | 1,191,701 | 12,384,545 | 10,428,911 | 900,683,990 |
| Transfer to successor trustee | 727,031 | 983,139 | - | - | - | - | - | - | 1,710,170 |
| Administrative expenses | 19,504,931 | 22,089,247 | 3,804,021 | 211,499 | 338,885 | 134,760 | 801,824 | 1,121,604 | 48,006,771 |
| Net Decrease | (317,586,492) | (404,525,657) | (25,870,422) | (13,821,453) | (8,838,625) | (1,560,545) | (8,983,190) | (8,682,003) | (789,868,387) |
| **Net assets available for benefits** | | | | | | | | | |
| Beginning of the year | 4,027,574,131 | 3,904,922,229 | 350,949,802 | 147,389,394 | 98,039,881 | 19,726,466 | 94,705,707 | 120,582,897 | 8,763,890,507 |
| End of year | $ 3,709,987,639 | $ 3,500,396,572 | $ 325,079,380 | $ 133,567,941 | $ 89,201,256 | $ 18,165,921 | $ 85,722,517 | $ 111,900,894 | $ 7,974,022,120 |

The accompanying notes are an integral part of these financial statements.

# Employees' Retirement Plans of Alcoa Inc. and Subsidiary Companies
## Statements of Changes in Individual Plan Net Assets Available for Benefits
## Year Ended December 31, 2014

| | Alcoa Salary Plan | Alcoa Hourly Plan | Alcoa Subsidiaries Merged Inactive Plan | Suriname Plan I | Suriname Plan II | Huck Plan | Muskegon Plan | Howmet Plan | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Additions** | | | | | | | | | |
| Employer contributions | $ 185,276,660 | $ 171,452,956 | $ 12,342,424 | $ - | $ 830,126 | $ - | $ 5,206,592 | $ 6,599,524 | $ 381,708,282 |
| Plans' interest in Alcoa Inc. Retirement Plans' Master Trust investment income | 643,347,382 | 630,958,174 | 54,131,855 | 23,319,113 | 15,551,579 | 3,134,328 | 14,554,414 | 18,769,459 | 1,403,766,304 |
| **Deductions** | | | | | | | | | |
| Benefit payments | 429,934,261 | 450,295,422 | 20,938,618 | 9,879,420 | 7,819,525 | 1,121,050 | 8,193,978 | 11,103,162 | 939,285,436 |
| Transfer to successor trustee | 62,016,882 | 55,058,886 | - | - | - | - | - | - | 117,075,768 |
| Administrative expenses | 20,864,329 | 22,670,260 | 3,055,884 | 167,274 | 247,677 | 110,452 | 767,077 | 1,081,731 | 48,964,684 |
| Net Increase | 315,808,570 | 274,386,562 | 42,479,777 | 13,272,419 | 8,314,503 | 1,902,826 | 10,799,951 | 13,184,090 | 797,224,466 |
| **Net assets available for benefits** | | | | | | | | | |
| Beginning of the year | 3,711,765,561 | 3,630,535,667 | 308,470,025 | 134,116,975 | 89,725,378 | 17,823,640 | 83,905,756 | 107,398,807 | 8,083,741,809 |
| End of year | $ 4,027,574,131 | $ 3,904,922,229 | $ 350,949,802 | $ 147,389,394 | $ 98,039,881 | $ 19,726,466 | $ 94,705,707 | $ 120,582,897 | $ 8,763,890,507 |

The accompanying notes are an integral part of these financial statements.

## 1. Description of Plans

The following description of each Plan's provisions provides only general information. Participants should refer to each Plan document for a more complete description of each Plan's provisions.

### General

The Alcoa Inc. and Subsidiary Companies ("Alcoa" or the "Company") Alcoa Retirement Plan I (Alcoa Salary Plan), Alcoa Retirement Plan II (Alcoa Hourly Plan), Alcoa Subsidiaries Merged Inactive Plan (Alcoa Subsidiaries Merged Inactive Plan), Employees' Retirement Plan of Suriname Aluminum Company for Employees in Suriname Plan I (Suriname Plan I), Employees' Retirement Plan of Suriname Aluminum Company for Employees in Suriname Plan II (Suriname Plan II), Huck International, Inc. Retirement Plan (Huck Plan), Howmet Corporation Muskegon County Operations Hourly Employees' Pension Plan (Muskegon Plan) and the Howmet Corporation Pension Plan (Howmet Plan) (each referred to as the "Plan") are noncontributory defined benefit plans that cover United States employees and certain employees in foreign countries and participate in the Alcoa Inc. Retirement Plans' Master Trust ("Alcoa Master Trust" or "Master Trust") at December 31, 2015 and 2014.

The investments of the Plans are maintained under one trust pursuant to a "Master Trust Agreement" with the trustee, The Bank of New York Mellon ("trustee").

All fiduciary responsibility for the Plans is maintained by the Alcoa Benefits Management Committee. The Plans are subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA").

The Plans provide, in general, for monthly pensions upon retirement at or after age 65, or earlier upon disability, incapacity, special circumstances or with certain minimum age and service requirements. Pension benefits generally depend upon length of service, job grade or remuneration, and certain social security and other benefits.

### Eligibility and Vesting

Employees hired before March 1, 2006 are eligible to participate in the Alcoa Salary Plan after they have attained age 21 with one year of service. Effective March 1, 2006, certain new hires are not eligible to participate in the Alcoa Salary Plan. Certain hourly employees are eligible to participate in the Alcoa Hourly Plan after they have attained age 21 with one year of service.

Suriname salaried employees hired after December 31, 2011 are no longer eligible to participate in Suriname Plan I. Suriname hourly employees hired after December 31, 2012 are no longer eligible to participate in Suriname Plan II. If hired prior to these dates, employees are eligible to participate in Suriname Plan I and Suriname Plan II after they have attained age 21 with one year of service.

There are no longer any active participants accruing benefits in the Alcoa Subsidiaries Merged Inactive Plan or the Huck Plan. Benefits are being provided to retired participants and will be provided to deferred vested participants in accordance with Plan provisions applicable at the time of their termination.

Employees hired or rehired prior to January 1, 1999 are eligible to participate immediately in the Muskegon Plan.

Nonunion hourly-paid employees are eligible to participate immediately in the Howmet Plan. Effective January 1, 2002, certain salaried employees commenced participation in Alcoa Plan I.

All eligible participants currently accruing benefits in the Plans fully vest after a five-year period except the eligible participants in the Muskegon Plan which fully vest after five years of continuous service and the eligible salaried participants in the Howmet Plan which fully vest after three years of service.

**Benefit Provisions**
The benefit provisions for the Alcoa Salary Plan, the Suriname Plan I, and the Howmet Plan determine the retirement benefit on a compensation-based formula.

The Alcoa Hourly Plan, the Suriname Plan II, and the Muskegon Plan determine the retirement benefits on a factor times years of service.

Benefit provisions for certain participants of the Alcoa Subsidiaries Merged Inactive Plan determine the retirement benefit on a compensation-based formula while the remaining is based on hypothetical account balances.

The benefit provisions for the Huck plan determine benefits for service through December 31, 2001 based on a percentage of monthly earnings. This percentage was based on age at month end.

Normal retirement for the Alcoa Salary Plan, the Alcoa Hourly Plan, the Alcoa Subsidiaries Merged Inactive Plan and the Huck Plan is age 65 with five years of service.

Normal retirement for the Suriname Plan I is age 60 with 18 months of service or age 55 with 30 years of service.

Normal retirement for the Suriname Plan II is the earlier of the date of (i) age 60, or (ii) the later of the date of age 65 or 18 months of service.

Normal retirement for the Muskegon Plan and the Howmet Plan is age 62 with five years of service.

**Risks and Uncertainties**
The Plans invest in investment securities. Investment securities are exposed to various risks such as interest rate, market 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 such changes could materially affect the amounts reported in the statements of individual plan net assets available for benefits.

Plans' 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 would be material to the individual Plans' financial statements.

**Termination of Plans**
Benefits under the Plans are insured by the Pension Benefit Guaranty Corporation ("PBGC"). Should the Plans' terminate at some future time, the net assets of the Plans generally will not be available on a pro rata basis to provide participants' benefits. Whether a particular participant's accumulated plan benefits will be paid depends on both the priority of those benefits and the level of benefits guaranteed by the PBGC at that time. Some benefits may be fully or partially provided for by the then existing assets and the PBGC guaranty, while other benefits may not be provided for at all.

A full description of each Plan's termination priorities is available in each Plan document.

**Recently Adopted Accounting Standards**

In July 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) *2015-12, Plan Accounting: Defined Benefit Pension Plans (Topic 960), Defined Contribution Pension Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965): (Part I) Fully Benefit-Responsive Investment Contracts, (Part II) Plan Investment Disclosures, (Part III) Measurement Date Practical Expedient*. Part I eliminates the requirements to measure the fair value of fully benefit-responsive investment contracts but will continue to provide certain disclosures that help users understand the nature and risks of fully benefit-responsive investment contracts. Upon adoption, contract value will be the only required measure for fully benefit-responsive investment contracts. Part II eliminates the requirements to disclose individual investments that represent 5 percent or more of net assets available for benefits and the net appreciation or depreciation in fair value of investments by general type. Part II also simplifies the level of disaggregation of investments that are measured using fair value. Plans will continue to disaggregate investments that are measured using fair value by general type; however, plans are no longer required to also disaggregate investments by nature, characteristics and risks. Further, the disclosure of information about fair value measurements shall be provided by general type of plan asset. Part III provides a practical expedient to permit plans to measure investments and investment-related accounts as of a month-end date that is closest to the plan's fiscal year-end, when the fiscal period does not coincide with month-end. The ASU is effective for fiscal years beginning after December 15, 2015, with early adoption permitted. Parts I and III are not applicable to the Plans. Management has adopted Part II of ASU 2015-12 and its application was applied retrospectively.

In May 2015, the FASB issued ASU 2015-07, *Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)*. Under the amendments in this ASU, investments for which fair value is measured at net asset value per share (or its equivalent) using the practical expedient are no longer categorized in the fair value hierarchy. The ASU is effective for fiscal years beginning after December 15, 2015, with early adoption permitted. Management has adopted the ASU and its application was applied retrospectively.

**Separation of Upstream and Value-Add Businesses**

On September 28, 2015, the Alcoa Inc. Board of Directors unanimously approved a plan to separate the Upstream business (Global Primary Products) from the Value-Add business (Global Rolled Products, Engineered Products and Solutions, and Transportation and Construction Solutions). The separation will result in two independent, publicly-traded companies. The transaction is expected to be completed in the second half of 2016.

As a result of the separation, two new plans will be created from the existing Alcoa Salary Plan and the Alcoa Hourly Plan, the Pension Plan for Certain Salaried Employees of Alcoa USA Corp and the Pension Plan for Certain Hourly Employees of Alcoa USA Corp. Obligations associated with certain employees and the related assets to fund such obligations from the Alcoa Salary Plan and the Alcoa Hourly Plan will be transferred to these new plans with no reduction or increase in participant benefits accumulated at the time of transfer.

This future separation had no effect on the 2015 financial statements for any of the plans.

## 2. Summary of Accounting Policies

### Basis of Accounting
The financial statements of the Plans are prepared under the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America (US GAAP).

### Use of Estimates
The preparation of the financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and changes therein, disclosure of contingent assets and liabilities, and the actuarial present value of accumulated plan benefits at the date of the financial statements. Actual results could differ from those estimates.

### Investment Valuation and Income Recognition
Investments are stated at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 4 for a discussion of fair value measurements.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Plans' interest in Alcoa Inc. Retirement Plans' Master Trust Investment income and loss includes the Plans' unrealized and realized gains and losses on investments, dividends, interest income, and investment management/trustee fees.

The fair value of the Plans' interest in the Master Trust is based on the beginning-of-year value of the Plans' interest in the Master Trust plus actual contributions and allocated investment income less actual distributions, allocated investment loss and administrative expenses.

The individual Plans participate in the operations of the Master Trust through the purchase and sale of units. Cash inflows and outflows between the Plans and the Master Trust are accounted for at the beginning-of-the-month unit value. Units are revalued monthly to reflect changes in the investment values. Net investment income and losses are allocated to the Plans that participate in the Master Trust based on each Plan's units held.

### Benefit Payments
Benefit payments to participants are recorded when paid.

### Administrative Expenses
Trustee, audit, legal, actuarial, recordkeeping, and other administrative expenses are paid by the Plans.

### Investment Management Fees
Investment management fees are paid by the Plans and are included in Plans' interest in Alcoa Inc. Retirement Plans' Master Trust Investment income and loss.

### Employer Contributions Receivable
Employer contributions receivable represent the remaining funding amounts Alcoa is required to contribute to meet the minimum contribution levels established by law or as a result of a formal commitment by Alcoa to make a contribution into the respective Plans.

**Funding Policy**
The Plans are defined benefit pension plans. No employee contributions to the Plans are required or permitted. Alcoa contributes such amounts as are necessary on an actuarial basis to provide the individual Plans with assets sufficient to meet the benefits to be paid to current and future retirees or their beneficiaries. The minimum contributions required, if any, for the Plans are designed to fund the Target Normal cost and an amortization installment towards any funding shortfalls. A funding shortfall occurs when there is an excess of Funding Target liability over the Actuarial Value of Plan Assets. The amortization installment is designed to fully fund the funding shortfall in a given year over a 7 year period. Alcoa may also voluntarily contribute amounts in excess of those minimum required amounts to meet certain funding thresholds or company objectives.

The actuarial determined pension contribution is calculated using the Unit Credit Cost Method. The Funding Target liability is the present value of accrued benefits and based on compensation and service to date. The Target Normal Cost is the present value of benefits expected to be accrued during the current plan year, reflecting the effect of expected compensation increases during the year and including expected expenses to be paid from plan assets during the year.

The Plans have met the minimum funding requirements under the provisions of ERISA in 2015 and 2014.

**Investment Policy and Strategy**
The Alcoa Master Trust's investment policy and weighted average asset allocations at December 31, 2015 and 2014, by asset category, are as follows:

| Asset Category | Policy Range |
|---|---|
| Equity securities | 20-55% |
| Debt securities | 25-55 |
| Other | 15-35 |

The principal objectives underlying the investments of the Alcoa Master Trust's assets are to ensure that Alcoa can properly fund benefit obligations as they become due under a broad range of potential economic and financial scenarios, maximize the long-term investment return with an acceptable level of risk based on such obligations, and to broadly diversify investments across and within the capital markets to protect asset value against adverse market movements in any one market. Specific objectives for long-term investment strategy include reducing the volatility of pension assets relative to pension liabilities and achieving risk factor diversification across the balance of the asset portfolio. Investments are diversified by strategy, asset class, geography, and sector to enhance returns and mitigate downside risk. A large number of external investment managers are used to gain broad exposure to the financial markets and to mitigate manager concentration risk.

Investment practices must comply with the requirements of ERISA and any other applicable laws and regulations. The use of derivative instruments is permitted where appropriate and necessary for achieving overall investment policy objectives. Derivatives are used to, (1) manage interest rate risk within the portfolio, (2) manage exposure to a market more efficiently than could be accomplished through the use of cash markets, and (3) increase investment returns by reducing the cost of structuring the portfolio or by capturing value disparities between financial instruments. The Master Trust utilizes exchange traded instruments such as interest rate futures, options on futures, interest rate swaps and foreign currency forward contracts.

## 3. Plans' Interest in Alcoa Inc. Retirement Plans' Master Trust

The Plans' investments are held in the Alcoa Master Trust. At December 31, Master Trust net assets were comprised of the following:

| | 2015 | 2014 |
|---|---|---|
| **Assets** | | |
| Investments at fair value | | |
| Cash and cash equivalents | $ 780,853,686 | $ 189,160,330 |
| Fixed income securities | 2,582,161,521 | 3,653,540,288 |
| Equity securities - common stocks | 202,774,938 | 265,587,392 |
| Equity securities - registered investment companies | 567,946,157 | 718,097,053 |
| Equity securities - commingled trust funds | 284,392,435 | 438,673,879 |
| Futures contracts | (2,595,765) | 165,989 |
| Gold trust-exchange traded fund | 125,508,394 | 140,344,262 |
| Alternative investments | 3,372,951,657 | 3,289,247,424 |
| Total investments at fair value | 7,913,993,023 | 8,694,816,617 |
| Receivable for sales pending settlement and interest earned (net of payable for investments purchased) | 2,413,740 | 10,245,845 |
| Total value of interest in Alcoa Inc. Retirement Plans' Master Trust at fair value | $ 7,916,406,763 | $ 8,705,062,462 |

For the years ended December 31, Master Trust investment income (loss) was comprised of the following:

| | 2015 | 2014 |
|---|---|---|
| **Investment income** | | |
| Interest | $ 36,710,613 | $ 39,049,105 |
| Dividends | 13,960,546 | 19,209,275 |
| Net increase (decrease) in fair value of investments | | |
| Fixed income securities | (158,251,816) | 934,413,516 |
| Equity securities - common stocks | (801,938) | 38,009,100 |
| Equity Securities - registered investment companies | (13,872,321) | 41,663,695 |
| Equity securities - commingled trust funds | (32,993,085) | 73,837,639 |
| Gold trust - exchange traded fund | (14,848,781) | (2,945,213) |
| Alternative investments | 83,555,475 | 274,654,258 |
| Investment management/trustee fees | (12,514,020) | (14,125,071) |
| | $ (99,055,327) | $ 1,403,766,304 |

The following table lists the ownership percentage of the Plans in the Alcoa Master Trust net assets as of December 31:

| | 2015 | 2014 |
|---|---|---|
| Alcoa Salary Plan | 46.25 % | 45.99 % |
| Alcoa Hourly Plan | 44.19 | 44.60 |
| Alcoa Subsidiaries Merged Inactive Plan | 4.05 | 3.95 |
| Suriname Plan I | 1.69 | 1.69 |
| Suriname Plan II | 1.12 | 1.13 |
| Huck Plan | 0.23 | 0.23 |
| Muskegon Plan | 1.06 | 1.06 |
| Howmet Plan | 1.41 | 1.35 |
| | 100.00 % | 100.00 % |

## 4. Fair Value Measurements

Financial Accounting Standards Board (FASB) *Account Standards Codification* (ASC) No. 820, *Fair Value Measurements and Disclosures*, provides the framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under FASB ASC 820 are described below:

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

Level 2 Inputs to the valuation methodology include:

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

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

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

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in methodologies used at December 31, 2015 and 2014:

**Cash and Cash Equivalents**
Commingled funds are valued at the closing Net Asset Value (NAV) of shares held at year end as a practical expedient.

Interest-bearing cash is valued at carrying value which approximates fair value.

**Fixed Income Securities**
U.S. government debt is valued at the closing price reported on an active market on the last business day of each period presented.

U.S. and non-U.S. fixed interest obligations (principally corporate bonds and debentures) are valued through consultation and evaluation with brokers in the institutional market using quoted prices and other observable market data.

Commingled trust funds are valued at the NAV of shares held at year end as a practical expedient.

**Equity Securities – Common Stocks, Gold Trust-Exchange Traded Fund, and Futures Contracts**
Valued at the closing price reported on an active market on the last business day of each period presented.

**Equity Securities – Commingled Trust Funds**
Valued at the NAV of shares held at year end as a practical expedient.

**Equity Securities – Registered Investment Companies**
Valued at the NAV of shares held at year end. These funds are open-end mutual funds that are registered with the U.S. Securities and Exchange Commission. They are required to publish their daily NAV and to transact at that price and, therefore, are deemed to be actively traded with readily determinable fair values.

**Alternative Investments**
Valued primarily at the closing NAV of shares held at year end as a practical expedient as reported in audited financial statements. In the event that audited financial statements for these investments are not available in time to prepare the financial statements or management believes the value reported by the investment advisor does not accurately reflect fair value due to an event in the market place, management will adjust the reported value to fair value based upon information provided by the investment manager and independent valuation experts.

The following table sets forth by level, within the fair value hierarchy, the Plans' assets at fair value as of December 31, 2015.

| | Level 1 | Level 2 | Level 3 | Assets Measured at Net Asset value [(a)] | Total |
|---|---|---|---|---|---|
| **Fair Value Measurements at end of year** | | | | | |
| Cash and cash equivalents | $ 278,910,428 | $ - | $ - | $ 501,943,258 | $ 780,853,686 |
| Equity securities - common stocks | | | | | |
| Real estate investment trusts | 159,049,635 | - | - | - | 159,049,635 |
| Other | 43,725,303 | - | - | - | 43,725,303 |
| Equity securities - registered investment companies | 567,946,157 | - | - | - | 567,946,157 |
| Equity securities - commingled trust funds | - | - | - | 284,392,435 | 284,392,435 |
| Fixed income securities | | | | | |
| U.S. government debt | 2,391,565,430 | - | - | - | 2,391,565,430 |
| Commingled trust funds | - | - | - | - | - |
| Corporate debt - other | - | 190,596,091 | - | - | 190,596,091 |
| Futures contracts | (2,595,765) | - | - | - | (2,595,765) |
| Gold Trust - exchange traded fund | 125,508,394 | - | - | - | 125,508,394 |
| Alternative Investments | | | | | |
| Private real estate - direct | - | - | - | 159,136,275 | 159,136,275 |
| Timber - direct | - | - | - | 34,857,083 | 34,857,083 |
| Venture capital - direct | - | - | - | 155,979,260 | 155,979,260 |
| Private equity - direct | - | - | - | 185,058,281 | 185,058,281 |
| Private debt - direct | - | - | - | 29,300,792 | 29,300,792 |
| Private equity/venture capital - fund of funds | - | - | - | 69,447,805 | 69,447,805 |
| Hedge funds | - | - | - | 2,739,172,161 | 2,739,172,161 |
| Total assets at fair value | $ 3,564,109,582 | $ 190,596,091 | $ - | $ 4,159,287,350 | $ 7,913,993,023 |

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

The following table sets forth by level, within the fair value hierarchy, the Plans' assets at fair value as of December 31, 2014.

| | Level 1 | Level 2 | Level 3 | Assets Measured at Net Asset value [(a)] | Total |
|---|---|---|---|---|---|
| **Fair Value Measurements at end of year** | | | | | |
| Cash and cash equivalents | $ - | $ - | $ - | $ 189,160,330 | $ 189,160,330 |
| Equity securities - common stocks | | | | | |
| Real estate investment trusts | 152,426,083 | - | - | - | 152,426,083 |
| Other | 113,161,309 | - | - | - | 113,161,309 |
| Equity securities - registered investment companies | 718,097,053 | - | - | - | 718,097,053 |
| Equity securities - commingled trust funds | - | - | - | 438,673,879 | 438,673,879 |
| Fixed income securities | | | | | |
| U.S. government debt | 2,908,764,320 | - | - | - | 2,908,764,320 |
| Commingled trust funds | - | - | - | 323,869,322 | 323,869,322 |
| Corporate debt - other | - | 420,906,646 | - | - | 420,906,646 |
| Futures contracts | 165,989 | - | - | - | 165,989 |
| Gold Trust - exchange traded fund | 140,344,262 | - | - | - | 140,344,262 |
| Alternative Investments | | | | | |
| Private real estate - direct | - | - | - | 205,881,308 | 205,881,308 |
| Timber - direct | - | - | - | 38,427,517 | 38,427,517 |
| Venture capital - direct | - | - | - | 152,623,285 | 152,623,285 |
| Private equity - direct | - | - | - | 254,823,630 | 254,823,630 |
| Private debt - direct | - | - | - | 39,812,400 | 39,812,400 |
| Private equity/venture capital - fund of funds | - | - | - | 85,003,712 | 85,003,712 |
| Hedge funds | - | - | - | 2,512,675,572 | 2,512,675,572 |
| Total assets at fair value | $ 4,032,959,016 | $ 420,906,646 | $ - | $ 4,240,950,955 | $ 8,694,816,617 |

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

The Master Trust uses the NAV as a practical expedient for all of the underlying investments which (a) do not have a readily determinable fair value and (b) either have the attributes of an investment company or prepare their financial statements consistent with the measurement principals of an investment company.

There have been no transfers between levels during the year.

The following table sets forth a summary of liquidity consideration of the investments classified as commingled trust funds and alternative investments.

| Category of Investment | Investment Strategy | December 31, 2015 Fair Value | December 31, 2014 Fair Value | Unfunded Commitments at December 31, 2015 | Remaining Life at December 31, 2015 | Redemption Restrictions and Terms |
|---|---|---|---|---|---|---|
| Equity Securities- Commingled Trust Funds | Global Equity markets | $ 284,392,435 | $ 438,673,879 | Not Applicable | Not Applicable | (C) |
| Fixed Securities- Commingled Trust Funds | US Fixed markets | - | 323,869,322 | Not Applicable | Not Applicable | (C) |
| Private Real Estate - Direct | Global Private Real Estate strategy | 159,136,275 | 205,881,308 | 4,737,260 | Up to 2 years | (A) |
| Timber - Direct | Global Timber strategy | 34,857,083 | 38,427,517 | - | Up to 1 year | (A) |
| Venture Capital - Direct | Global Private Real Estate strategy | 155,979,260 | 152,623,285 | 2,463,742 | Up to 8 years | (A) |
| Private Equity - Direct | Global Private Equity strategy | 185,058,281 | 254,823,630 | 22,923,347 | Up to 10 years | (A) |
| Private Debt - Direct | Global Distressed Debt | 29,300,792 | 39,812,400 | 17,381 | Up to 10 years | (A) |
| Private Equity/Venture Capital Fund of Funds | Global Private Equity/Venture Capital strategy | 69,447,805 | 85,003,712 | 12,826,436 | Up to 7 years | (A) |
| Hedge Funds | Discretionary and Systematic Macro strategy | 931,389,154 | 1,374,008,311 | Not Applicable | Not Applicable | (B) |
| Hedge Funds | Long / Short Equity strategy | 1,637,440,829 | 962,258,766 | Not Applicable | Not Applicable | (B) |
| Hedge Funds | Equity strategy | 170,342,178 | 176,408,495 | Not Applicable | Not Applicable | (B) |

(A) Redemption not permitted during life of funds. Sale or transfer subject to approval of the general partner.

(B) Hedge Fund Redemption terms vary by fund. Under normal conditions, 82% liquidity is typically available within 180 days, but can be further restricted based on actions of other investors. When investor restrictions are in place, 87% of funds are available with one year.

(C) Redemption terms vary by fund. Full liquidity is available within 30 days.

## 5. Derivatives

### Derivatives Policy

The Master Trust enters into contractual arrangements classified as derivatives in carrying out its investment strategy, principally to (1) manage interest rate risk within the portfolio, (2) manage exposure to a market more efficiently than could be accomplished through the use of cash markets, and (3) increase investment returns by reducing the cost of structuring the portfolio or by capturing value disparities between financial instruments. The Master Trust utilizes exchange traded instruments such as interest rate futures, options on futures, interest rate swaps and foreign currency forward contracts. The Plan is subject to enforceable master netting arrangements, or netting arrangements, with certain counterparties. Master netting agreements may not be specific to each different asset type; in such instances, they would allow the company to close out and net its total exposure to a specified counter party in the event of a default.

The following is a summary of the Master Trust's usage of derivatives:

### Futures Contracts

A futures contract is a contractual agreement to make or take delivery of a standardized quantity of a specified grade or type of commodity or financial instrument at a specified future date in accordance with terms specified by a regulated future exchange.

The Master Trust may use treasury, Eurodollar, and other fixed income futures contracts to manage exposure to interest rate risk and exposure in the market. Buying futures tends to increase the Master Trust's exposure to the underlying instrument held, while selling futures tends to reduce the exposure. The balance of futures at year-end is indicative of the average balance during the year.

A summary of the open futures contracts as of December 31, 2015 and 2014 is presented below:

| | Long Contracts | | | | Short Contracts | | | |
|---|---|---|---|---|---|---|---|---|
| | 2015 Number of Contracts | 2015 Aggregate Face Value | 2015 Unrealized Gain/Loss | 2015 Variation Margin | 2015 Number of Contracts | 2015 Aggregate Face Value | 2015 Unrealized Gain/Loss | 2015 Variation Margin |
| 90 Day Eurodollar Future | - | $ - | $ - | $ - | 520 | $ 128,077,025 | $ 367,935 | $ - |
| US Treasury Bond Future | - | - | - | - | 34 | 5,227,500 | (22,578) | (17,000) |
| US 10 Year Treasury Notes Future | 16,085 | 2,025,202,031 | (3,104,310) | - | 3 | 377,719 | 1,547 | (891) |
| US 5 Year Treasury Notes Future | - | - | - | - | 139 | 16,446,524 | 26,062 | (19,546) |
| US 2 Year Treasury Notes Future | 10 | 2,172,344 | (2,641) | 469 | - | - | - | - |
| US Ultra Bond Future | 195 | 30,944,063 | 137,573 | 194,979 | - | - | - | - |
| Grand total | 16,290 | $ 2,058,318,438 | $ (2,969,378) | $ 195,448 | 696 | $ 150,128,768 | $ 372,966 | $ (37,437) |

| | Long Contracts | | | | Short Contracts | | | |
|---|---|---|---|---|---|---|---|---|
| | 2014 Number of Contracts | 2014 Aggregate Face Value | 2014 Unrealized Gain/Loss | 2014 Variation Margin | 2014 Number of Contracts | 2014 Aggregate Face Value | 2014 Unrealized Gain/Loss | 2014 Variation Margin |
| 90 Day Eurodollar Future | 190 | $ 46,820,750 | $ 17,306 | $ - | 190 | $ 46,464,500 | $ (53,546) | $ - |
| US Treasury Bond Future | - | - | - | - | 1 | 144,563 | (3,117) | - |
| US 10 Year Treasury Notes Future | - | - | - | - | 2 | 253,594 | (438) | - |
| US 5 Year Treasury Notes Future | - | - | - | - | 152 | 18,077,313 | 72,672 | - |
| US 2 Year Treasury Notes Future | - | - | - | - | - | - | - | - |
| US Ultra Bond Future | 53 | 8,754,938 | 133,164 | - | - | - | - | - |
| Grand total | 243 | $ 55,575,688 | $ 150,470 | $ - | 345 | $ 64,939,970 | $ 15,571 | $ - |

### Options on Futures Contracts

The Master Trust may buy or sell options on futures contracts to capture value disparities between financial instruments. Options strategies may be used to improve yields and enhance performance of the fixed income portfolio. Options on futures contracts are purchased or sold on regulated futures exchanges.

### Interest Rate Swaps

The Master Trust may use interest rate swaps to manage exposure to interest rates within the portfolio or to capture value disparities between financial instruments. An interest rate swap typically involves the agreement with a counterparty to exchange variable rate and fixed rate payments with respect to a notional amount of principal on the value of an underlying instrument or index. Interest rate swaps are purchased or sold on regulated futures exchanges.

### Foreign Currency Forwards

The Master Trust may use foreign currency forwards to capture value disparities between the fixed income and currency markets. Currency forwards may be purchased or sold to enhance returns in the fixed income portfolio. Foreign currency forwards are purchased or sold on regulated futures exchanges.

Activity and year end holdings of Options on Futures Contracts, Interest Rates Swaps and Foreign Currency Forwards were not material to the overall investment portfolio.

## 6. Accumulated Plan Benefits

Accumulated plan benefits are those future benefit payments that are attributable, under each Plan's provisions, to employees' service rendered to the benefit information date. Accumulated plan benefits comprise 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.

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

Based upon actuarial estimates at December 31, 2014, the present value of accumulated plan benefits for the Plans included in the Master Trust is as follows:

| | Actuarial Present Value of Accumulated Plan Benefits at December 31, 2014 | | | |
|---|---|---|---|---|
| | Vested Benefits of Participants Currently Receiving Benefits | Other Vested Benefits | Nonvested Benefits | Total Present Value of Accumulated Plan Benefits |
| Alcoa Salary Plan | $ 3,621,916,882 | $ 1,615,422,041 | $ 66,130,411 | $ 5,303,469,334 |
| Alcoa Hourly Plan | 3,408,220,349 | 1,039,328,495 | 51,195,673 | 4,498,744,517 |
| Alcoa Subsidiaries Merged Inactive Plan | 218,626,790 | 284,343,043 | - | 502,969,833 |
| Suriname Plan I | 127,511,968 | 25,391,965 | 2,149,940 | 155,053,873 |
| Suriname Plan II | 100,642,088 | 19,913,804 | 1,858,999 | 122,414,891 |
| Huck Plan | 5,042,785 | 9,555,714 | - | 14,598,499 |
| Muskegon Plan | 52,988,831 | 66,764,412 | 4,908,113 | 124,661,356 |
| Howmet Plan | 19,739,567 | 123,290,966 | 3,895,609 | 146,926,142 |

The change in the actuarial present value of accumulated plan benefits resulted from the following:

| | Actuarial Present Value of Accumulated Plan Benefits December 31, 2013 | Plan Amendments | Change in Actuarial Assumptions | Interest | Benefits Paid | Benefits Accumulated and Other Experience (A) | Actuarial Present Value of Accumulated Plan Benefits December 31, 2014 |
|---|---|---|---|---|---|---|---|
| Alcoa Salary Plan | $ 4,998,247,829 | $ - | $ 455,923,287 | $ 229,597,474 | $ (429,934,261) | $ 49,635,005 (B) | $ 5,303,469,334 |
| Alcoa Hourly Plan | 4,358,747,910 | 26,111,856 | 347,192,725 | 198,412,810 | (450,295,422) | 18,574,638 (C) | 4,498,744,517 |
| Alcoa Subsidiaries Merged Inactive Plan | 450,595,756 | - | 52,023,074 | 21,126,069 | (20,938,618) | 163,552 | 502,969,833 |
| Suriname Plan I | 141,745,760 | - | 13,969,152 | 6,566,690 | (9,879,420) | 2,651,691 | 155,053,873 |
| Suriname Plan II | 113,510,674 | - | 10,812,083 | 5,260,844 | (7,819,525) | 650,815 | 122,414,891 |
| Huck Plan | 14,543,385 | - | 722,628 | 671,177 | (1,121,050) | (217,641) | 14,598,499 |
| Muskegon Plan | 114,803,805 | - | 10,906,691 | 5,313,927 | (8,193,978) | 1,830,911 | 124,661,356 |
| Howmet Plan | 135,831,315 | - | 12,248,166 | 6,276,352 | (11,103,162) | 3,673,471 | 146,926,142 |

(A) Consists of expected increase in benefits and other experience.

(B) Includes a transfer out of the Plan of $47,334,890 related to the Mt. Holly aluminum smelter sale as described in Footnote 10.

(C) Includes a transfer out of the Plan of $34,713,359 related to the Mt. Holly aluminum smelter sale as described in Footnote 10.

The significant assumptions underlying the actuarial computations for the Plans at December 31, 2014 and 2013 are as follows:

**Interest Rate**
The interest rate used for the Plans is 4.00% and 4.80% as of December 31, 2014 and 2013, respectively. The cash balance interest rate is 3.00% for December 31, 2014 and 2013.

**Life Expectancy of Participants**
The following tables list the mortality tables used for the calculation of the Accumulated Plan Benefits and lump-sum distributions for each of the plans for the years ended 2014 and 2013.

| Plan | 12.31.2014 Valuation | 12.31.2013 Valuation |
|---|---|---|
| Alcoa Salary Plan (non Trinidad participants)<br>Alcoa Subsidiaries Merged Inactive Plan (salaried employees)<br>Huck Plan<br>Howmet Plan (salaried employees) | For deaths after service retirement and deaths after disability retirement, RP-2014 tables for males and females, and the following improvement tables:<br>• Males - based on experience of Alcoa's salaried male population and trends to 0.65% ultimate improvement rate for ages less than 85, with the ultimate level grading to zero by age 115, achieved over a 20-year period<br>• Females - based on experience of Alcoa's hourly (male and female) and salaried female population and trends to 0.50% ultimate improvement rate for ages less than 85, with the ultimate level grading to zero by age 115, achieved over a 20-year period | For deaths after service retirement and deaths after disability retirement, RP-2014 tables for males and females, and the following improvement tables:<br>• Males - based on experience of Alcoa's salaried male population and trends to 0.65% ultimate improvement rate for ages less than 85, with the ultimate level grading to zero by age 115, achieved over a 20-year period<br>• Females - based on experience of Alcoa's hourly (male and female) and salaried female population and trends to 0.50% ultimate improvement rate for ages less than 85, with the ultimate level grading to zero by age 115, achieved over a 20-year period |
| Alcoa Hourly Plan<br>Alcoa Subsidiaries Merged Inactive Plan (hourly employees)<br>Muskegon Plan<br>Howmet Plan (hourly employees) | For deaths after service retirement and deaths after disability retirement, RP-2014 tables for males and females, with Blue Collar adjustment and an adjustment based on Alcoa's actual experience, and the following improvement table:<br>• Males and Females - based on experience of Alcoa's hourly (male and female) and salaried female population and trends to 0.50% ultimate improvement rate for ages less than 85, with the ultimate level grading to zero by age 115, achieved over a 20-year period | For deaths after service retirement and deaths after disability retirement, RP-2014 tables for males and females, with Blue Collar adjustment and an adjustment based on Alcoa's actual experience, and the following improvement table:<br>• Males and Females - based on experience of Alcoa's hourly (male and female) and salaried female population and trends to 0.50% ultimate improvement rate for ages less than 85, with the ultimate level grading to zero by age 115, achieved over a 20-year period |
| Suriname Plan I<br>Alcoa Salary Plan (Trinidad participants) | For deaths after service retirement and deaths after disability retirement, 2014 Prescribed IRS Static Tables. | For deaths after service retirement and deaths after disability retirement, 2013 Prescribed IRS Static Tables. |
| Suriname Plan II | For deaths after service retirement and deaths after disability retirement, IRS Prescribed 2014 Static Tables with Blue Collar adjustment for males and females with an adjustment based on Alcoa's actual experience. | For deaths after service retirement and deaths after disability retirement, IRS Prescribed 2013 Static Tables with Blue Collar adjustment for males and females with an adjustment based on Alcoa's actual experience. |

| Plan | 2013/2014 Lump Sum Distributions |
|---|---|
| Alcoa Salary Plan<br>Alcoa Hourly Plan<br>Howmet Plan<br>Alcoa Subsidiaries Merged Inactive Plan<br>Muskegon Plan | For the 2013 and 2014 plan year, lump sum distributions are based on the PPA benefit calculated using modified segment rates and the Applicable Mortality Table as provided in Section 417(e)(3) of the Code. |

**Retirement**
The assumed weighted average retirement age is:

| | |
|---|---|
| Alcoa Salary Plan | 65 |
| Alcoa Hourly Plan | 64 |
| Alcoa Subsidiaries Merged Inactive Plan | 58 |
| Suriname Plan I | 58 |
| Suriname Plan II | 65 |
| Huck Plan | 66 |
| Muskegon Plan | 64 |
| Howmet Plan | 63 |

## 7. Tax Status

The Internal Revenue Service has determined and informed the Company that the Plans and related trust are designed in accordance with applicable sections of the Internal Revenue Code (IRC)

The Plans have been amended since receiving the determination letters. However, the Plans' administrator and tax counsel believe that the Plans are designed and are currently being operated in compliance with the applicable requirements of the IRC.

Determination letters received were dated as follows:

| | |
|---|---|
| Alcoa Salary Plan | April 25, 2013 |
| Alcoa Hourly Plan | June 4, 2013 |
| Alcoa Subsidiaries Merged Inactive Plan | April 29, 2013 |
| Suriname Plan I | February 29, 2012 |
| Suriname Plan II | October 14, 2014 |
| Huck Plan | May 13, 2013 |
| Muskegon Plan | July 10, 2012 |
| Howmet Plan | March 18, 2013 |

U.S. GAAP requires plan management to evaluate tax positions taken by the plan and recognize a tax liability (or asset) if the organization has taken an uncertain position that would not be sustained upon examination by the IRS. The plan administrator and its tax counsel have analyzed the tax positions taken by the plan and has concluded that as of December 31, 2015, there are no uncertain tax positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure to the financial statements. As such, no reserve is required under U.S. GAAP. The plan is subject to audit by the IRS; however, there are no current IRS audits for any tax periods in progress. The plan administrator and its tax counsel believe the Plan is no longer subject to IRS audit outside the statutory audit period.

## 8. Information Certified by the Plans' Trustee

The information included in the Plans' financial statements and Note 3 was prepared by Bank of New York Mellon, the Trustee of the Plans, as of and for the years ended December 31, 2015 and 2014 and furnished to the plan administrator. The plan administrator has obtained a certification from the Trustee that such information is complete and accurate in accordance with Section 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. The Plans' management relies on third party valuation statements in valuing its alternative investments. In substantiating the reasonableness of the valuation information provided, management considers a variety of factors including review of methods and assumptions used by external sources, economic conditions, and market developments.

- Statements of Individual Plan Net Assets Available for Benefits – investments at fair value except for the alternative investments of $3,372,951,657 and $3,289,247,424 identified in Note 3 (and reflected in the table below) as of December 31, 2015 and 2014, respectively.

| | 2015 | 2014 |
|---|---|---|
| Private real estate - direct | $ 159,136,275 | $ 205,881,308 |
| Timber - direct | 34,857,083 | 38,427,517 |
| Venture capital - direct | 155,979,260 | 152,623,285 |
| Private equity - direct | 185,058,281 | 254,823,630 |
| Private debt - direct | 29,300,792 | 39,812,400 |
| Private equity/venture capital - fund of funds | 69,447,805 | 85,003,712 |
| Hedge funds | 2,739,172,161 | 2,512,675,572 |
| Total assets at fair value | $ 3,372,951,657 | $ 3,289,247,424 |

- Statements of Changes in Individual Plan Net Assets Available for Benefits – interest, dividends and net depreciation or appreciation in fair value of investments except for the net appreciation or depreciation in fair value of alternative investments of $83,555,475 and $274,654,258 (reflected in the table below) for years ended December 31, 2015 and 2014, respectively.

| | 2015 | 2014 |
|---|---|---|
| Private real estate - direct | $ 14,885,855 | $ 32,496,314 |
| Timber - direct | (3,246,183) | 2,953,272 |
| Venture capital - direct | 30,296,108 | 23,143,479 |
| Private equity - direct | 2,452,260 | 18,792,071 |
| Private debt - direct | (4,167,310) | 350,444 |
| Private equity/venture capital - fund of funds | 5,117,239 | 3,902,310 |
| Hedge funds | 38,217,506 | 193,016,368 |
| Net appreciation/depreciation in fair value of alternative investments | $ 83,555,475 | $ 274,654,258 |

## 9. Related Party Transactions

The Plans invest in funds managed by The Bank of New York Mellon. The Bank of New York Mellon is the trustee as defined by the Plans; therefore, these transactions, and expenses paid to The Bank of New York Mellon, qualify as party-in-interest transactions.

Alcoa Inc. makes minimum funding contributions to the Plans; therefore, these transactions qualify as party-in-interest transactions.

## 10. Plan Specific Activities

**Alcoa Salary and Hourly Plans**
Alcoa Inc. sold its interest in the Mt. Holly aluminum smelter in Goose Creek, South Carolina, to the Century Aluminum Company on December 1, 2014. In accordance with the side agreement, Mt. Holly active and inactive participants in the Alcoa Salary and Hourly Plans had their liabilities and associated plan assets transferred to the Century Aluminum of South Carolina, Inc. Employees Retirement Plan in 2015. As a result, payables of $62,016,882 and $55,058,886 were established as of December 31, 2014 in the Alcoa Salary and Hourly Plans, respectively. The actual amounts transferred were $62,743,913 and $56,042,025, respectively. The additional amounts of $727,031 and 983,139 are reflected as 2015 transfers. The Alcoa Salary and Alcoa Hourly Plans' actuarial present value of accumulated plan benefits for these participants were $47,334,890 and $34,713,359, respectively. This is reflected in the December 31, 2014 actuarial valuation.

**Alcoa Hourly Plan**
In 2015, plan amendments recognized the effect of participants receiving a pension factor increase at certain locations. The amendment increases the actuarial present value of accumulated plan benefits by $1,059,000. This is not reflected in the December 31, 2014 actuarial valuation.

In 2014, United Steelworkers ratified a new five-year labor agreement. A plan amendment recognized the effect of participants receiving pension factor increases. This resulted in an increase of the actuarial present value of accumulated plan benefits by approximately $23,590,000. Additional plan amendments recognizing the effect of participants receiving pension factor increases resulted in an increase of the actuarial present value of accumulated plan benefits by approximately $318,000.This is reflected in the December 31, 2014 actuarial valuation.

**Suriname Plan I**
In 2015, plan amendments recognized the effect of a retirement window and immediate vesting for certain plan participants. These amendments increase the actuarial present value of accumulated plan benefits by $6,322,000. This is not reflected in the December 31, 2014 actuarial valuation.

**Suriname Plan II**
In 2015, plan amendments recognized the effect of a retirement window, immediate vesting and factor increases for certain plan participants. These amendments increase the actuarial present value of accumulated plan benefits by $7,128,000. This is not reflected in the December 31, 2014 actuarial valuation.

**2015 Contributions**

On January 15, 2015 and September 15, 2015, Alcoa Inc. made cash contributions of $67,465,789 and $111,015,000 to its plans. In the plan financial statements, the $178,480,789 is being applied to the 2014 plan year and is reflected as an employer contribution receivable on the Statements of Individual Plan Net Assets Available for Benefits and as an Employer Contribution on the Statements of Changes in Individual Plan Net Assets Available for Benefits.

| | |
|---|---|
| Alcoa Salary Plan | $ 87,569,915 |
| Alcoa Hourly Plan | 78,452,989 |
| Alcoa Subsidiaries Merged Inactive Plan | 7,119,856 |
| Muskegon Plan | 2,472,398 |
| Howmet Plan | 2,865,631 |

## 11. Commitments and Contingencies

The Alcoa Master Trust has capital commitments of $42,968,166 and $61,471,228 at December 31, 2015 and 2014, respectively, in relation to additional funding for Limited Partnerships in which it invests.

## 12. Subsequent Events

Management has evaluated the events and transactions that have occurred through October 3, 2016, the date the financial statements were available to be issued, and noted no items requiring adjustment of the financial statements or additional disclosures, other than that which is noted below.

On January 15, 2016, Alcoa Inc. made cash contributions of $48,774,043 to its plans. On September 15, 2016 Alcoa Inc. made the cash contributions of $10,284,000 to its plans. In the plan financial statements, the $59,058,043 is being applied to the 2015 plan year and is reflected as an Employer contribution receivable on the Statements of Individual Plan Net Assets Available for Benefits and as an Employer contribution on the Statements of Changes in Individual Plan Net Assets Available for Benefits.

| | |
|---|---|
| Alcoa Salary Plan | $ 49,367,000 |
| Alcoa Hourly Plan | 2,412,000 |
| Alcoa Subsidiaries Merged Inactive Plan | 4,884,164 |
| Suriname Plan II | 540,365 |
| Muskegon Plan | 1,540,514 |
| Howmet Plan | 314,000 |

# SCHEDULE SB (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

## Single-Employer Defined Benefit Plan Actuarial Information

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

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

OMB No. 1210-0110

**2015**

**This Form Is Open to Public Inspection**

For calendar plan year 2015 or fiscal plan year beginning 01/01/2015 and ending 12/31/2015

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

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

**A** Name of plan
HOWMET CORP MUSKEGON COUNTY OPERATIONS HOURLY EMPLOYEES PENSION PLAN

**B** Three-digit plan number (PN) ▶ 009

**C** Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
HOWMET CORPORATION

**D** Employer Identification Number (EIN)
13-2838093

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

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

## Part I Basic Information

**1** Enter the valuation date: Month 01 Day 01 Year 2015

**2** Assets:

| | | |
|---|---|---|
| **a** Market value | **2a** | 94,636,212 |
| **b** Actuarial value | **2b** | 91,223,664 |

**3** Funding target/participant count breakdown

| | (1) Number of participants | (2) Vested Funding Target | (3) Total Funding Target |
|---|---|---|---|
| **a** For retired participants and beneficiaries receiving payment | 665 | 46,001,790 | 46,001,790 |
| **b** For terminated vested participants | 287 | 6,967,094 | 6,967,094 |
| **c** For active participants | 409 | 45,289,662 | 45,950,475 |
| **d** Total | 1,361 | 98,258,546 | 98,919,359 |

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

| | | |
|---|---|---|
| **a** Funding target disregarding prescribed at-risk assumptions | **4a** | |
| **b** Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor | **4b** | |
| **5** Effective interest rate | **5** | 6.26% |
| **6** Target normal cost | **6** | 2,057,935 |

**Statement by Enrolled Actuary**

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

**SIGN HERE** Joy M. Shinsky JMS

Signature of actuary

9/29/16

Date

Joy M. Shinsky

Type or print name of actuary

1408319

Most recent enrollment number

BUCK CONSULTANTS, LLC

Firm name

412-281-2506

Telephone number (including area code)

11 STANWIX STREET, SUITE 700

PITTSBURGH PA 15222-1312

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 [ ]

## HOWMET CORPORATION MUSKEGON COUNTY OPERATIONS
## HOURLY EMPLOYEES' PENSION PLAN

**EIN: 13-2838093**

**PN: 009**

## ATTACHMENT TO SCHEDULE SB OF 2015 FORM 5500

***Schedule SB, Line 22 – Description of Weighted Average Retirement Age***

| (1) Age | (2) Expected Active Headcount | (3) Retirement Rate | (4) Expected Retirements (2)*(3) | (5) Weighted Age (1)*(4) |
|---|---|---|---|---|
| 55 | 256.5818 | 0.0175 | 4.4775 | 246.2648 |
| 56 | 324.4006 | 0.0300 | 9.7320 | 544.9930 |
| 57 | 363.4100 | 0.0300 | 10.9023 | 621.4311 |
| 58 | 416.7356 | 0.0600 | 25.0041 | 1,450.2400 |
| 59 | 457.2568 | 0.0600 | 27.4354 | 1,618.6892 |
| 60 | 512.7435 | 0.0800 | 41.0195 | 2,461.1687 |
| 61 | 523.8117 | 0.0800 | 41.9049 | 2,556.2010 |
| 62 | 521.5779 | 0.3500 | 182.5523 | 11,318.2401 |
| 63 | 358.4463 | 0.3500 | 125.4562 | 7,903.7402 |
| 64 | 254.9661 | 0.3500 | 89.2381 | 5,711.2398 |
| 65 | 180.1282 | 0.3500 | 63.0449 | 4,097.9167 |
| 66 | 119.8295 | 0.3500 | 41.9403 | 2,768.0625 |
| 67 | 84.9524 | 0.2500 | 21.2381 | 1,422.9520 |
| 68 | 66.9870 | 0.2000 | 13.3974 | 911.0233 |
| 69 | 54.9730 | 0.2500 | 13.7432 | 948.2842 |
| 70 | 40.6799 | 1.0000 | 40.6799 | 2,847.5942 |
| 71 | 0.0000 | 1.0000 | 0.0000 | 0.0000 |
| 72 | 2.0000 | 1.0000 | 2.0000 | 144.0000 |
| **Total** | | | **753.7663** | **47,572.0407** |

**WARA: Total (5) / Total (4) = 63.11 years**

Note: The table presents values rounded to fewer significant digits than used in the calculations.

**Note to Column 2:** The Expected Active Headcount for each age includes persons who are eligible to retire and persons who are not eligible to retire at each age.

**Note to Column 3:** At each age, these retirement rates are a weighted average of the rates shown in Attachment to Part V for active participants eligible to retire at the age and zero for all other active participants.

# HOWMET CORPORATION MUSKEGON COUNTY OPERATIONS
# HOURLY EMPLOYEES' PENSION PLAN

## EIN: 13-2838093

## PN: 009

## ATTACHMENT TO SCHEDULE SB OF 2015 FORM 5500

### *Schedule SB, Line 24 –Change in Actuarial Assumptions*

The expected rate of return on assets was changed from 8.00% to 7.75%. In addition, retirement rates were updated. The decrease in the expected long-term rate of return was due to a combination of a decrease in the 20-year moving average of annual performance and lower future expected market returns. The process relied on a combination of historical asset return information and forward-looking returns by asset class using information from various external investment managers and consultants. Retirement rates were adjusted to account for the increase in life expectancy noted in the Society of Actuaries report on mortality tables and the impact of the Great Recession on retirement savings which is expected to result in individuals working longer than previously assumed.

## HOWMET CORPORATION MUSKEGON COUNTY OPERATIONS
## HOURLY EMPLOYEES' PENSION PLAN

## EIN: 13-2838093

## PN: 009

## ATTACHMENT TO SCHEDULE SB OF 2015 FORM 5500

***Schedule SB, Line 26 – Schedule of Active Participant Data***

Distributed by age and service as of January 1, 2015

| AGE | SERVICE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | < 1 | 1 - 4 | 5 - 9 | 10 - 14 | 15 - 19 | 20 - 24 | 25 - 29 | 30 - 34 | 35 - 39 | 40 + |
| < 25 | | | | | | | | | | |
| 25 - 29 | | | | | | | | | | |
| 30 - 34 | | | | | | | | | | |
| 35 - 39 | | | | | | | | | | |
| 40 - 44 | | | | | 3 | | | | | |
| 45 - 49 | | | | | 6 | 2 | 2 | | | |
| 50 - 54 | | | | | 21 | 30 | 17 | 13 | 13 | |
| 55 - 59 | | | | | 15 | 19 | 28 | 56 | 56 | 14 |
| 60 - 64 | | | | | 11 | 11 | 8 | 9 | 30 | 32 |
| 65 - 69 | | | | | 2 | 2 | 1 | 1 | | 6 |
| 70+ | | | | | | 1 | | | | |

# HOWMET CORPORATION MUSKEGON COUNTY OPERATIONS
# HOURLY EMPLOYEES' PENSION PLAN

## EIN: 13-2838093

## PN: 009

## ATTACHMENT TO SCHEDULE SB OF 2015 FORM 5500

***Schedule SB, Line 32 – Schedule of Amortization Bases***

**Shortfall Amortization**

| Date Established | Type Of Base | Years Remaining | Shortfall Amortization Installment | Present Value of Remaining Installments as of January 1, 2015 |
|---|---|---|---|---|
| January 1, 2010 | Shortfall | 2 | $ 2,515,947 | $ 4,918,494 |
| January 1, 2011 | Shortfall | 3 | 1,272,556 | 3,648,181 |
| January 1, 2012 | Shortfall | 4 | (2,361,954) | (8,828,037) |
| January 1, 2013 | Shortfall | 5 | 231,219 | 1,056,471 |
| January 1, 2014 | Shortfall | 6 | 1,167,371 | 6,201,692 |
| January 1, 2015 | Shortfall | 7 | 116,228 | 698,894 |
| Total | | | $ 2,941,367 | $ 7,695,695 |

**HOWMET CORPORATION MUSKEGON COUNTY OPERATIONS**

**HOURLY EMPLOYEES' PENSION PLAN**

**EIN: 13-2838093**

**PN: 009**

**ATTACHMENT TO SCHEDULE SB OF 2015 FORM 5500**

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

## Prescribed Funding/PBGC Assumptions and Methods

**The following assumptions and methods are prescribed by ERISA.**

### Funding and PBGC Premium interest rates

For 2015 Plan Year: Segment Rates with four-month lookback, constrained in accordance with relevant legislation as follows:

| | Unconstrained Rates* | Rates Reflecting Corridor** |
|---|---|---|
| First Segment Rate | 1.15% | 4.72% |
| Second Segment Rate | 4.06% | 6.11% |
| Third Segment Rate | 5.15% | 6.81% |

Effective Interest Rate Based on constrained rates 6.26%

For 2014 Plan Year: Segment Rates with four-month lookback, constrained in accordance with relevant legislation as follows:

| | Unconstrained Rates* | Rates Reflecting Corridor** |
|---|---|---|
| First Segment Rate | 1.37% | 4.99% |
| Second Segment Rate | 4.05% | 6.32% |
| Third Segment Rate | 5.06% | 6.99% |

Effective Interest Rate Based on constrained rates 6.46%

*Used for maximum tax-deduction and PBGC premium purposes
**Used for minimum funding and benefit restriction purposes

### Mortality

Mortality tables mandated by PPA as specified in IRS Regulation 1.430(h)(3)-1, applied on a static basis, projected 7 years from the valuation date for annuitants and 15 years for non-annuitants. Lump sum mortality tables are as prescribed by IRS Code 417(e).

### Actuarial cost method

The Funding Target is the present value of accrued benefits based on compensation and service to date. The Target Normal Cost is the present value of benefits expected to be accrued during the current plan year, reflecting the effect of expected compensation increases during the year and including expected plan administrative and investment related expenses to be paid from plan assets during the year.

## Non-Prescribed Funding Assumptions and Methods

**The following assumptions were selected by the plan's enrolled actuary. The asset valuation method was selected by the plan sponsor with the actuary's advice and is an acceptable method under PPA.**

### Expenses

Expected plan administrative and investment-related expenses of $780,000 were added to the Target Normal Cost.

### Frequency of optional payment forms

50% of actives elect lump sum distribution at retirement or disability decrement. Others elect a joint and survivor annuity if assumed married and a life annuity otherwise.

### Marital percentage

73% of participants are assumed to be married at death. Husbands are assumed to be 3 years older than their wives.

### Mortality table

The mortality tables are applied on a static basis. Separate annuitant and non-annuitant tables were used.

### Early Retirement rates

| Age | Assumption |
|---|---|
| 55 | 3.00% |
| 56 | 3.00 |
| 57 | 3.00 |
| 58 | 6.00 |
| 59 | 6.00 |
| 60 | 8.00 |
| 61 | 8.00 |

### Normal Retirement rates

| Age | Assumption |
|---|---|
| 62 | 35.00% |
| 63 | 35.00 |
| 64 | 35.00 |
| 65 | 35.00 |
| 66 | 35.00 |
| 67 | 25.00 |
| 68 | 20.00 |
| 69 | 25.00 |
| 70 | 100.00 |

Terminated vested participants are assumed to commence receiving benefits at Normal Retirement Age or the earliest age eligible for unreduced benefits.

### Withdrawal rates for active participants not eligible for retirement

| Age | Withdrawal | | Vesting | Disability |
|---|---|---|---|---|
| | Male | Female | | |
| 25 | 16.97% | 16.00% | 17.00% | .05% |
| 30 | 13.00 | 14.00 | 11.00 | .07 |
| 35 | 11.50 | 12.00 | 9.00 | .08 |
| 40 | 11.00 | 10.00 | 7.00 | .11 |
| 45 | 10.50 | 9.00 | 4.00 | .23 |
| 50 | 10.50 | 8.00 | 3.00 | .45 |
| 55 | 10.50 | 7.00 | 3.00 | .77 |
| 60 | 10.50 | 7.00 | 3.00 | .77 |
| 64 | 10.50 | 7.00 | 3.00 | |

### Asset valuation method

The Actuarial Value of Assets is market value as of the valuation date, including discounted receivable contributions, reduced by 2/3 and 1/3 of the of the gain/(loss) in each of the prior 2 years, respectively. The gain/(loss) for each period is determined as the actual return on market value during the period less the expected return on market value based on an assumed earnings rate chosen by the actuary but required by PPA to be not greater than the applicable third Segment Rate. The resulting value is constrained to be within a corridor of 90% to 110% of market value, including discounted receivable contributions.

| | Actuary's Assumption | Third Segment Rate | Reflecting PPA Limit |
|---|---|---|---|
| 2015 Expected Return | 7.75% | 6.81% | 6.81% |
| 2014 Expected Return | 8.00% | 6.99% | 6.99% |
| 2013 Expected Return | 8.50% | 7.16% | 7.16% |

### Future actuarial measurements

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions, applicable law or regulations. An analysis of the potential range of such future differences is beyond the scope of this report.

## Summary of Changes from the January 1, 2014 Valuation

**Prescribed Assumptions:** The interest rates and mortality tables were updated to the current rates in accordance with PPA and HATFA.

**Non-Prescribed Assumptions:** The expected rate of return on assets was changed from 8.00% to 7.75%. In addition, retirement rates were updated. The decrease in the expected long-term rate of return was due to a combination of a decrease in the 20-year moving average of annual performance and lower future expected market returns. The process relied on a combination of historical asset return information and forward-looking returns by asset class using information from various external investment managers and consultants. Retirement rates were adjusted to account for the increase in life expectancy noted in the Society of Actuaries report on mortality tables and the impact of the Great Recession on retirement savings which is expected to result in individuals working longer than previously assumed.

These assumption changes increased the Funding Target approximately $561,000 and decreased the plan's AFTAP by 0.5%.

# HOWMET CORPORATION MUSKEGON COUNTY OPERATIONS
# HOURLY EMPLOYEES' PENSION PLAN

## EIN: 13-2838093

## PN: 009

## ATTACHMENT TO SCHEDULE SB OF 2015 FORM 5500

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

### Participation

All hourly-paid employees in a bargaining unit covered by any Labor Agreement which incorporates this plan by reference, who were hired before January 1, 1999.

### Accrued benefit

Consists of the applicable pension factor times years of Credited Service.

| Effective Date | Pension Factor |
|---|---|
| June 1, 2004 | $ 30.00 |
| June 1, 2005 | 31.00 |
| June 1, 2006 | 32.00 |
| June 1, 2007 | 33.00 |
| June 1, 2010 | 34.00 |
| April 1, 2012 | 35.00 |
| April 1, 2014 | 36.00 |
| April 1, 2015 | 37.00 |
| April 1, 2016 | 38.00 |

### Normal Retirement

Eligibility is age 62. Monthly benefit is the Accrued Benefit as defined above.

### Early Retirement

Eligibility is age 55 with 10 Years of Credited Service. Monthly benefit is the accrued normal retirement benefit reduced by .25% for each complete calendar month benefits commence prior to age 62 with maximum reduction of 15%.

### Disability Retirement

Eligibility is permanent disability after 10 Years of Credited Service. Twice the accrued normal retirement benefit is payable immediately upon disability until the earlier of 1) Normal Retirement Age or 2) receiving unreduced Social Security benefits for age or disability. The accrued normal retirement benefit is payable thereafter.

### Deferred Vested Benefit

Eligibility is 5 Years of Credited or Continuous Service. The accrued normal retirement benefit is payable at the Normal Retirement Age. Reduced benefits are payable as early as age 55 with 10 years of service at termination and reduced by .25% for each complete calendar month benefits commence prior to age 62.

### Pre-Retirement Spouse's Benefit

Eligibility is death with vested rights under the plan and completion of 5 Years of Credited or Continuous Service. Monthly benefit is 55 percent of the accrued normal retirement benefit reduced by the appropriate early retirement and joint and survivor option factors. The benefit is payable at the earliest date the employee would have been eligible for a retirement benefit.

### Normal Form of Payment

If a participant does not have an eligible spouse at retirement their benefit shall be paid in the form of a single life annuity. If they do have an eligible spouse at retirement the benefit shall be paid as a joint and 55 percent survivor annuity with reductions.

### Optional Form of Payment

Lump sum.

### Contributions

All contributions to support the Plan are made by the Company.

## Summary of Changes from the January 1, 2014 Valuation

None.

# SCHEDULE SB (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

## Single-Employer Defined Benefit Plan Actuarial Information

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

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

OMB No. 1210-0110

**2015**

**This Form is Open to Public Inspection**

For calendar plan year 2015 or fiscal plan year beginning 01/01/2015 and ending 12/31/2015

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

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

**A** Name of plan
HOWMET CORP MUSKEGON COUNTY OPERATIONS HOURLY EMPLOYEES PENSION PLAN

**B** Three-digit plan number (PN) ▶ 009

**C** Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
HOWMET CORPORATION

**D** Employer Identification Number (EIN)
13-2838093

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

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

## Part I Basic Information

**1** Enter the valuation date: Month 01 Day 01 Year 2015

**2** Assets:

| | | |
|---|---|---|
| **a** Market value | **2a** | 94,636,212 |
| **b** Actuarial value | **2b** | 91,223,664 |

**3** Funding target/participant count breakdown

| | (1) Number of participants | (2) Vested Funding Target | (3) Total Funding Target |
|---|---|---|---|
| **a** For retired participants and beneficiaries receiving payment | 665 | 46,001,790 | 46,001,790 |
| **b** For terminated vested participants | 287 | 6,967,094 | 6,967,094 |
| **c** For active participants | 409 | 45,289,662 | 45,950,475 |
| **d** Total | 1,361 | 98,258,546 | 98,919,359 |

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

| | | |
|---|---|---|
| **a** Funding target disregarding prescribed at-risk assumptions | **4a** | |
| **b** Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor | **4b** | |
| **5** Effective interest rate | **5** | 6.26% |
| **6** Target normal cost | **6** | 2,057,935 |

**Statement by Enrolled Actuary**

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

**SIGN HERE** Joy M. Shinsky

Signature of actuary

Date 1408319

Joy M. Shinsky

Type or print name of actuary

Most recent enrollment number 412-281-2506

BUCK CONSULTANTS, LLC

Firm name

Telephone number (including area code)

11 STANWIX STREET, SUITE 700

PITTSBURGH PA 15222-1312

Address of the firm

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

## Part II Beginning of Year Carryover and Prefunding Balances

| | | (a) Carryover balance | (b) Prefunding balance |
|---|---|---|---|
| 7 | Balance at beginning of prior year after applicable adjustments (line 13 from prior year) | 0 | 0 |
| 8 | Portion elected for use to offset prior year's funding requirement (line 35 from prior year) | 0 | 0 |
| 9 | Amount remaining (line 7 minus line 8) | 0 | 0 |
| 10 | Interest on line 9 using prior year's actual return of 17.98% | 0 | 0 |
| 11 | Prior year's excess contributions to be added to prefunding balance: | | |
| | **a** Present value of excess contributions (line 38a from prior year) | | 43 |
| | **b(1)** Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of 6.46% | | 3 |
| | **b(2)** Interest on line 38b from prior year Schedule SB, using prior year's actual return | | 0 |
| | **c** Total available at beginning of current plan year to add to prefunding balance | | 46 |
| | **d** Portion of (c) to be added to prefunding balance | | 0 |
| 12 | Other reductions in balances due to elections or deemed elections | 0 | 0 |
| 13 | Balance at beginning of current year (line 9 + line 10 + line 11d – line 12) | 0 | 0 |

## Part III Funding Percentages

| | | | |
|---|---|---|---|
| 14 | Funding target attainment percentage | 14 | 92.22% |
| 15 | Adjusted funding target attainment percentage | 15 | 91.04% |
| 16 | Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement | 16 | 90.39% |
| 17 | If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage. | 17 | % |

## Part IV Contributions and Liquidity Shortfalls

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

| (a) Date (MM-DD-YYYY) | (b) Amount paid by employer(s) | (c) Amount paid by employees | (a) Date (MM-DD-YYYY) | (b) Amount paid by employer(s) | (c) Amount paid by employees |
|---|---|---|---|---|---|
| 04/15/2015 | 1,227,514 | 0 | | | |
| 07/15/2015 | 1,227,514 | 0 | | | |
| 10/15/2015 | 1,227,514 | 0 | | | |
| 01/15/2016 | 1,227,514 | 0 | | | |
| 09/15/2016 | 313,000 | 0 | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | Totals ► 18(b) | 5,223,056 | 18(c) 0 |

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

| | | |
|---|---|---|
| **a** Contributions allocated toward unpaid minimum required contributions from prior years | 19a | 0 |
| **b** Contributions made to avoid restrictions adjusted to valuation date | 19b | 0 |
| **c** Contributions allocated toward minimum required contribution for current year adjusted to valuation date | 19c | 4,999,777 |

**20** Quarterly contributions and liquidity shortfalls:

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

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

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

Liquidity shortfall as of end of quarter of this plan year

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

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

**21** Discount rate:

**a** Segment rates:

| 1st segment: | 2nd segment: | 3rd segment: | |
|---|---|---|---|
| 4.72% | 6.11% | 6.81% | ☐ N/A, full yield curve used |

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

**23** Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

## Part VI Miscellaneous Items

| | | |
|---|---|---|
| **24** Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment. | ☒ Yes | ☐ No |
| **25** Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment. | ☐ Yes | ☒ No |
| **26** Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. | ☒ Yes | ☐ No |

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

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

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

## Part VIII Minimum Required Contribution For Current Year

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

| | | |
|---|---|---|
| **a** Target normal cost (line 6) | **31a** | 2,057,935 |
| **b** Excess assets, if applicable, but not greater than line 31a | **31b** | 0 |

**32** Amortization installments:

| | Outstanding Balance | Installment |
|---|---|---|
| **a** Net shortfall amortization installment | 7,695,695 | 2,941,367 |
| **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** | 4,999,302 |

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

| | | |
|---|---|---|
| **36** Additional cash requirement (line 34 minus line 35) | **36** | 4,999,302 |
| **37** Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c) | **37** | 4,999,777 |

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

| | | |
|---|---|---|
| **a** Total (excess, if any, of line 37 over line 36) | **38a** | 475 |
| **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

| | | |
|---|---|---|
| **42** Amount of acceleration adjustment | **42** | 0 |
| **43** Excess installment acceleration amount to be carried over to future plan years | **43** | 0 |

| SCHEDULE H (Form 5500) | Financial Information | OMB No. 1210-0110 |
|---|---|---|
| Department of the Treasury<br>Internal Revenue Service<br>Department of Labor<br>Employee Benefits Security Administration<br>Pension Benefit Guaranty Corporation | This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code).<br>▶ **File as an attachment to Form 5500.** | **2015**<br>**This Form is Open to Public Inspection** |

For calendar plan year 2015 or fiscal plan year beginning and ending

| **A** Name of plan | **B** Three-digit plan number (PN) ▶ |
|---|---|
| **C** Plan sponsor's name as shown on line 2a of Form 5500 | **D** Employer Identification Number (EIN) |

## Part I Asset and Liability Statement

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

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

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

## Part II Income and Expense Statement

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

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

| | | (a) Amount | (b) Total |
|---|---|---|---|
| **(6)** Net investment gain (loss) from common/collective trusts | 2b(6) | | |
| **(7)** Net investment gain (loss) from pooled separate accounts | 2b(7) | | |
| **(8)** Net investment gain (loss) from master trust investment accounts | 2b(8) | | |
| **(9)** Net investment gain (loss) from 103-12 investment entities | 2b(9) | | |
| **(10)** Net investment gain (loss) from registered investment companies (e.g., mutual funds) | 2b(10) | | |
| **c** Other income | 2c | | |
| **d** Total income. Add all **income** amounts in column (b) and enter total | 2d | | |

## Expenses

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

## Net Income and Reconciliation

| | | | |
|---|---|---|---|
| **k** Net income (loss). Subtract line **2j** from line **2d** | 2k | | |
| **l** Transfers of assets: | | | |
| **(1)** To this plan | 2l(1) | | |
| **(2)** From this plan | 2l(2) | | |

## Part III Accountant's Opinion

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

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

**(1)** ☐ Unqualified **(2)** ☐ Qualified **(3)** ☐ 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: **(2)** EIN:

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

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

## Part IV Compliance Questions

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

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

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

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

**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

## Part V Trust Information

| **6a** Name of trust | **6b** Trust's EIN |
|---|---|
| | |

| **6c** Name of trustee or custodian | **6d** Trustee's or custodian's telephone number |
|---|---|
| | |

**Attachment to 2015 Form 5500**
**Schedule H, line 4i - Schedule of Assets (Held at End of Year)**

**Plan Name** HOWMET CORP MUSKEGON COUNTY OPERATIONS HRLY EES PENSION PLAN **EIN:** 13-2838093
**Plan Sponsor's Name** HOWMET CORPORATION **PN:** 009

| (a) | (b) Identity of issue, borrower, lessor, or similar party | (c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value. | (d) Cost | (e) Current value |
|---|---|---|---|---|
| * | Alcoa Ret Plans MT | Investment in Alcoa Retirement Plans Master Trust | 53,837,523 | 84,206,653 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |