

Form 5500-SF Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Short Form Annual Return/Report of Small Employee Benefit Plan This form is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA), and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). ► Complete all entries in accordance with the instructions to the Form 5500-SF.	OMB Nos. 1210-0110 1210-0089 2016 This Form is Open to Public Inspection
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Part I Annual Report Identification Information	
For calendar plan year 2016 or fiscal plan year beginning <u>07/01/2016</u> and ending <u>06/30/2017</u>	
A This return/report is for:	☒ a single-employer plan ☐ a multiple-employer plan (not multiemployer) (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.) ☐ a one-participant plan ☐ a foreign plan
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 Check box if filing under:	☒ Form 5558 ☐ automatic extension ☐ DFVC program ☐ special extension (enter description)

Part II Basic Plan Information —enter all requested information													
1a Name of plan <u>PENSION PLAN FOR HOURLY EMPLOYEES OF THE ALAMET DIVISION OF GLOBE METALLURGICAL INC.</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">1b Three-digit plan number (PN) ►</td> <td style="width: 40%; text-align: center;"><u>004</u></td> </tr> <tr> <td colspan="2">1c Effective date of plan 11/20/1984</td> </tr> </table>	1b Three-digit plan number (PN) ►	<u>004</u>	1c Effective date of plan 11/20/1984									
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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) <u>GLOBE METALLURGICAL, INC.</u> <u>3807 HIGHLAND AVE</u> <u>NIAGARA FALLS, OH 14305</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>2b Employer Identification Number (EIN) <u>20-5573569</u></td> </tr> <tr> <td>2c Sponsor's telephone number <u>716-278-6100</u></td> </tr> <tr> <td>2d Business code (see instructions) <u>332900</u></td> </tr> </table>	2b Employer Identification Number (EIN) <u>20-5573569</u>	2c Sponsor's telephone number <u>716-278-6100</u>	2d Business code (see instructions) <u>332900</u>									
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3a Plan administrator's name and address ☒ Same as Plan Sponsor.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>3b Administrator's EIN</td> </tr> <tr> <td>3c Administrator's telephone number</td> </tr> </table>	3b Administrator's EIN	3c Administrator's telephone number										
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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. a Sponsor's name	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>4b EIN</td> </tr> <tr> <td>4c PN</td> </tr> </table>	4b EIN	4c PN										
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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, if applicable, a Schedule SB or Schedule MB completed and signed by an enrolled actuary, 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.	04/10/2018	LUCAS NICELY
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
Preparer's name (including firm name, if applicable) and address (include room or suite number)			Preparer's telephone number

- 6a** Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) ☒ Yes ☐ No
- b** Are you claiming a waiver of the annual examination and report of an independent qualified public accountant (IQPA) under 29 CFR 2520.104-46? (See instructions on waiver eligibility and conditions.) ☒ Yes ☐ No
- If you answered "No" to either line 6a or line 6b, the plan cannot use Form 5500-SF and must instead use Form 5500.**
- c** 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 III Financial Information

7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	2950286	3050637
b Total plan liabilities	7b		
c Net plan assets (subtract line 7b from line 7a)	7c	2950286	3050637
8 Income, Expenses, and Transfers for this Plan Year		(a) Amount	(b) Total
a Contributions received or receivable from:			
(1) Employers	8a(1)	46477	
(2) Participants	8a(2)		
(3) Others (including rollovers)	8a(3)		
b Other income (loss)	8b	302176	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		348653
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	233502	
e Certain deemed and/or corrective distributions (see instructions) ..	8e		
f Administrative service providers (salaries, fees, commissions)	8f	14800	
g Other expenses	8g		
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		248302
i Net income (loss) (subtract line 8h from line 8c)	8i		100351
j Transfers to (from) the plan (see instructions)	8j		

Part IV Plan Characteristics

- 9a** If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristic Codes in the instructions:
1B 1I
- b** If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristic Codes in the instructions:

Part V Compliance Questions

10 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? (See instructions and DOL's Voluntary Fiduciary Correction Program)	10a		X		
b Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 10a.)	10b		X		
c Was the plan covered by a fidelity bond?	10c	X			500000
d Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	10d		X		
e Were any fees or commissions paid to any brokers, agents, or other persons by an insurance carrier, insurance service, or other organization that provides some or all of the benefits under the plan? (See instructions.)	10e		X		
f Has the plan failed to provide any benefit when due under the plan?	10f		X		
g Did the plan have any participant loans? (If "Yes," enter amount as of year-end.)	10g		X		
h If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	10h		X		
i If 10h was answered "Yes," check the box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3	10i				

Part VI Pension Funding Compliance

11 Is this a defined benefit plan subject to minimum funding requirements? (If "Yes," see instructions and complete Schedule SB (Form 5500) and line 11a below)	☒ Yes ☐ No
11a Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40	11a 0
12 Is this a defined contribution plan subject to the minimum funding requirements of section 412 of the Code or section 302 of ERISA?	☐ Yes ☒ No
(If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.)	
a 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 letter ruling granting the waiver. Month _____ Day _____ Year _____	
If you completed line 12a, complete lines 3, 9, and 10 of Schedule MB (Form 5500), and skip to line 13.	
b Enter the minimum required contribution for this plan year	12b
c Enter the amount contributed by the employer to the plan for this plan year	12c
d Subtract the amount in line 12c from the amount in line 12b. Enter the result (enter a minus sign to the left of a negative amount)	12d
e Will the minimum funding amount reported on line 12d be met by the funding deadline?	☐ Yes ☐ No ☐ N/A

Part VII Plan Terminations and Transfers of Assets

13a Has a resolution to terminate the plan been adopted in any plan year?	☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year	13a
b Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	☐ Yes ☒ No
c 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.)	
13c(1) Name of plan(s):	13c(2) EIN(s)
	13c(3) PN(s)

Part VIII Trust Information

14a Name of trust	14b Trust's EIN
14c Name of trustee or custodian	14d Trustee's or custodian's telephone number

Part IX IRS Compliance Questions

15a Is the plan a 401(k) plan? If "No," skip b.	☐ Yes ☐ No
15b How did the plan satisfy the nondiscrimination requirements for employee deferrals under section 401(k)(3) for the plan year? Check all that apply:	☐ Design-based safe harbor ☐ "Prior year" ADP test
	☐ "Current year" ADP test ☐ N/A
16a What testing method was used to satisfy the coverage requirements under section 410(b) for the plan year? Check all that apply:	☐ Ratio percentage test ☐ Average benefit test ☐ N/A
16b Did the plan satisfy the coverage and nondiscrimination requirements of sections 410(b) and 401(a)(4) for the plan year by combining this plan with any other plan under the permissive aggregation rules?	☐ Yes ☐ No
17a If the plan is a master and prototype plan (M&P) or volume submitter plan that received a favorable IRS opinion letter or advisory letter, enter the date of the letter ____/____/____ and the serial number _____.	
17b If the plan is an individually-designed plan that received a favorable determination letter from the IRS, enter the date of the most recent determination letter ____/____/____.	
18 Defined Benefit Plan or Money Purchase Pension Plan Only: Were any distributions made during the plan year to an employee who attained age 62 and had not separated from service?	☐ Yes ☐ No
19 Was any plan participant a 5% owner who had attained at least age 70 ½ during the prior plan year?	☐ Yes ☐ No

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 2016 This Form is Open to Public Inspection
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For calendar plan year 2016 or fiscal plan year beginning 07/01/2016 and ending 06/30/2017

▶ **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 <u>PENSION PLAN FOR HOURLY EMPLOYEES OF THE ALAMET DIVISION OF GLOBE METALLURGICAL INC.</u>	B Three-digit plan number (PN) ▶ <u>004</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>GLOBE METALLURGICAL, INC.</u>	D Employer Identification Number (EIN) <u>20-5573569</u>
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500

Part I	Basic Information
1 Enter the valuation date: Month <u>07</u> Day <u>01</u> Year <u>2016</u>	
2 Assets:	
a Market value	2a <u>2950286</u>
b Actuarial value	2b <u>3047154</u>
3 Funding target/participant count breakdown	
a For retired participants and beneficiaries receiving payment.....	(1) Number of participants <u>44</u> (2) Vested Funding Target <u>1855455</u> (3) Total Funding Target <u>1855455</u>
b For terminated vested participants.....	<u>25</u> <u>236918</u> <u>236918</u>
c For active participants.....	<u>18</u> <u>904534</u> <u>904607</u>
d Total.....	<u>87</u> <u>2996907</u> <u>2996980</u>
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 <u>5.90 %</u>
6 Target normal cost.....	6 <u>12481</u>

Statement by Enrolled Actuary

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

SIGN HERE		<u>04/04/2018</u>
	Signature of actuary	Date
<u>R. BLAINE BRICKHOUSE</u>	Type or print name of actuary	<u>17-03156</u>
		Most recent enrollment number
<u>FINDLEY DAVIES, INC.</u>	Firm name	<u>216-875-1900</u>
		Telephone number (including area code)
<u>1660 WEST SECOND STREET</u> <u>SUITE 900</u> <u>CLEVELAND, OH 44113</u>	Address of the firm	

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

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

Schedule SB (Form 5500) 2016
v. 160205

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	27888
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	27888
10	Interest on line 9 using prior year's actual return of <u>4.49</u> %	0	1252
11	Prior year's excess contributions to be added to prefunding balance:		
a	Present value of excess contributions (line 38a from prior year)		0
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 <u>6.11</u> %		0
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		0
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	29140

Part III Funding Percentages			
14	Funding target attainment percentage	14	100.70%
15	Adjusted funding target attainment percentage	15	101.67%
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	103.26%
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
03/15/2018	46477	0			
Totals ▶			18(b)	46477	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 37789
20	Quarterly contributions and liquidity shortfalls:	
a	Did the plan have a "funding shortfall" for the prior year?	☐ Yes ☒ No
b	If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?	☐ Yes ☐ No
c	If line 20a is "Yes," see instructions and complete the following table as applicable:	

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

Part V	Assumptions Used to Determine Funding Target and Target Normal Cost		
21	Discount rate:		
a	Segment rates:	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">1st segment: 4.43%</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">2nd segment: 5.91%</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">3rd segment: 6.65%</div> </div>	☐ N/A, full yield curve used
b	Applicable month (enter code)	21b	4
22	Weighted average retirement age	22	62
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	12481
b	Excess assets, if applicable, but not greater than line 31a	31b	12481
32	Amortization installments:	Outstanding Balance	Installment
a	Net shortfall amortization installment	0	0
b	Waiver amortization installment	0	0
33	If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount		33
34	Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)		34
			0
	Carryover balance	Prefunding balance	Total balance
35	Balances elected for use to offset funding requirement	0	0
36	Additional cash requirement (line 34 minus line 35)		36
			0
37	Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)		37
			37789
38	Present value of excess contributions for current year (see instructions)		
a	Total (excess, if any, of line 37 over line 36)	38a	37789
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 SB, Line 26 - Schedule of Active Participant Data

July 1, 2016 Valuation
Pension Plan for Hourly Employees of the Alamet Division of Globe Metallurgical, Inc.
(EIN: 20-5573569; PN: 004)

Attained Age	Years of Credited Service									
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up
Under 25	-	-	-	-	-	-	-	-	-	-
25 to 29	-	-	-	-	-	-	-	-	-	-
30 to 34	-	-	-	-	-	-	-	-	-	-
35 to 39	-	-	-	-	-	-	-	-	-	-
40 to 44	-	-	-	-	-	-	-	-	-	-
45 to 49	-	1 (*)	-	-	-	-	-	-	-	-
50 to 54	1 (*)	2 (*)	1 (*)	-	-	-	-	-	-	-
55 to 59	1 (*)	-	1 (*)	2 (*)	-	-	1 (*)	-	-	-
60 to 64	-	-	-	1 (*)	2 (*)	-	3 (*)	-	-	-
65 to 69	-	-	-	-	-	-	-	-	-	-
70 & up	-	-	-	-	-	-	1 (*)	1 (*)	-	-

* Average compensation is not shown since there are fewer than 1,000 active participants in this plan

Appendix B

Statement of Actuarial Assumptions and Methods

Interest Rates	24-month segment rates averaged through the end of February 2016 (published March 2016):		
		Before <u>HATFA</u>	Reflecting <u>HATFA</u>
a.	First Rate, Years 1-5	1.46%	4.43%
b.	Second Rate, Years 5-20	3.93%	5.91%
c.	Third Rate, Years 20+	4.94%	6.65%
d.	Effective Interest Rate using the above rates	3.95%	5.90%
e.	Interest rate for developing expected value of assets, (before applying statute)		7.00%
Salary Scale	Not applicable.		
Mortality	RP-2000 static, non-generational Mortality Table as described in Regulation 1.430(h)(3) projected by Scale AA, to between 7 and 15 years beyond the year of the obligation, male and female, with different rates for annuitants and nonannuitants.		
Rates of Retirement	<u>Age</u>	<u>Rate</u>	
	55-59	5%	
	60-61	10	
	62	20	
	63-64	15	
	65+	100	
	Weighted Average Retirement Age is 62. This is the average retirement age for someone eligible to retire at all ages using the assumed retirement rates and no other decrements.		
Rates of Disability	None.		
Rates of Turnover	200% of the Crocker-Sarason Table T-3. Sample rates and ages are as follows:		
	<u>Age</u>	<u>Rate</u>	
	25	10.54%	
	40	7.68	
	55	0.67	
	65	0.00	

Appendix B (Continued)

***Assumptions
Made In Valuing
Spouse's Benefit***

Sixty percent of the employees included in the valuation are assumed to be married. These percentages are used as the probabilities that survivor benefits will be payable due to preretirement deaths. The wife is assumed to be three years younger than the husband.

***Optional Form
Election***

All employees are assumed to elect the normal form of benefit.

***Provision for
Expenses***

The expected administrative (i.e. non-investment) expenses that will be paid from plan assets, which were assumed to equal actual expenses during the prior year, were included in the Target Normal Cost for minimum contribution purposes.

***Standing
Elections***

None.

Asset Method

Market Value of Assets plus interest adjusted accrued but unpaid contributions as of the valuation date plus an adjustment to defer full recognition of investment losses and gains over a two-year period. The investment (gain)/loss for every year equals the market value at the beginning of the year projected to the end of the year using the interest rate above, but no greater than the third segment rate for the plan year, minus the end of the year actual market value. The actuarial value of assets will be no less than 90% and no more than 110% of the market value (including interest-adjusted accrued but unpaid contributions). Note that due to the regulatory constraint on the interest rate, a characteristic of this asset valuation method is that, over time, it may be more likely to produce an actuarial value of assets that is less than the market value of assets.

Employees Valued

Only participants as of the valuation date were valued.

***Selection of
Assumptions***

Information used in the analysis of selecting assumptions include: expected return on assets – review of historical and expected returns on various asset categories held by the plan as well as information provided by the plan's investment advisor.

The segment rates and mortality table used to determine minimum funding and funded ratios were based on methodology mandated by Internal Revenue Code and rates published by the Internal Revenue Service to affect it.

A complete review of non-economic assumptions, to satisfy ASOP 35 was done in December 2011.

Appendix B (Continued)

***Changes in
Assumptions and
Methods since the
Last Actuarial
Valuation***

The segmented interest rates used for determining the funding target were 4.72%, 6.11% and 6.81%. These rates were updated to the rates required for the current plan year and adjusted as required by HATFA.

The mortality table for the funding target was changed as required under PPA '06.

***Justification for
Changes in
Actuarial
Assumptions***

The only assumption changes were to prescribed actuarial assumptions or as a result of At-Risk status. Therefore, the plan did not need IRS approval to change assumptions and there is no need to disclose any "Change in Actuarial Assumptions."

**SCHEDULE SB
(Form 5500)**Department of the Treasury
Internal Revenue ServiceDepartment of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

**Single-Employer Defined Benefit Plan
Actuarial Information**

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

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

OMB No. 1210-0110

2016**This Form is Open to Public
Inspection**

For calendar plan year 2016 or fiscal plan year beginning 07/01/2016 and ending 06/30/2017

▶ **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 PENSION PLAN FOR HOURLY EMPLOYEES OF THE ALAMET DIVISION OF GLOBE METALLURGICAL INC.		B Three-digit plan number (PN) ▶ 004
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF Globe Metallurgical, Inc.		D Employer Identification Number (EIN) 20-5573569
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B		F Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500

Part I Basic Information

1 Enter the valuation date: Month <u>07</u> Day <u>01</u> Year <u>2016</u>			
2 Assets:			
a Market value.....	2a	2,950,286	
b Actuarial value.....	2b	3,047,154	
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.....	44	1,855,455	1,855,455
b For terminated vested participants.....	25	236,918	236,918
c For active participants.....	18	904,534	904,607
d Total.....	87	2,996,907	2,996,980
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐			
a Funding target disregarding prescribed at-risk assumptions.....	4a		
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor.....	4b		
5 Effective interest rate.....	5	5.90%	
6 Target normal cost.....	6	12,481	

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***R B B*

Signature of actuary

R. BLAINE BRICKHOUSE

Type or print name of actuary

FINDLEY DAVIES, INC.

Firm name

1660 WEST SECOND STREET
SUITE 900
CLEVELAND OH 44113

Address of the firm

4/4/2018

Date

1703156

Most recent enrollment number

216-875-1900

Telephone number (including area code)

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐**For Paperwork Reduction Act Notice, see the Instructions for Form 5500 or 5500-SF.****Schedule SB (Form 5500) 2016
v. 160205**

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	27,888
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	27,888
10 Interest on line 9 using prior year's actual return of <u>4.49%</u>	0	1,252
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year).....		0
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 <u>6.11%</u>		0
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.....		0
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	29,140

Part III Funding Percentages

14 Funding target attainment percentage	14	100.70%
15 Adjusted funding target attainment percentage.....	15	101.67%
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	103.26%
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
03/15/2018	46,477	0			
Totals ►			18(b)	46,477	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	37,789

20 Quarterly contributions and liquidity shortfalls:

- a** Did the plan have a "funding shortfall" for the prior year?..... ☐ Yes ☒ No
- b** If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?..... ☐ Yes ☐ No
- c** If line 20a is "Yes," see instructions and complete the following table as applicable:

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

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

21 Discount rate:			
a Segment rates:	1st segment: 4.43 %	2nd segment: 5.91 %	3rd segment: 6.65 %
			☐ N/A, full yield curve used
b Applicable month (enter code).....			21b 4
22 Weighted average retirement age			22 62
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	12,481	
b Excess assets, if applicable, but not greater than line 31a	31b	12,481	
32 Amortization installments:	Outstanding Balance	Installment	
a Net shortfall amortization installment.....	0	0	
b Waiver amortization installment	0	0	
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33).....	34	0	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement.....	0	0	0
36 Additional cash requirement (line 34 minus line 35).....	36	0	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c).....	37	37,789	
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a	37,789	
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 SB, Line 22 – Description of Weighted Average Retirement Age
Pension Plan for Hourly Employees of the Alamet Division of Globe Metallurgical, Inc.
July 1, 2016 Valuation
EIN/PN: 20-5573569/ 004

***Rates of
Retirement***

<u>Age</u>	<u>Rate</u>
55-59	5%
60-61	10
62	20
63-64	15
65+	100

Weighted Average Retirement Age is 62. This is the average retirement age for someone eligible to retire at all ages using the assumed retirement rates and no other decrements.

Appendix A

Summary of Principal Plan Provisions

Plan Sponsor	Globe Metallurgical, Inc.	
EIN/PN	20-5573569/004	
Effective Date	November 20, 1984; amended and restated effective July 1, 2014.	
Plan Year	The 12-month period beginning each July 1.	
Participation	Any employee on November 20, 1984 participated starting on that date. All other Selma, Alabama union employees became plan participants upon their date of hire. No new participants will be added to the plan on or after May 31, 2003.	
Continuous Service	The elapsed time since hire.	
Credited Service	Years of credited service are figured according to the following table:	
	<u>Hours Paid in Plan Year</u>	<u>Years of Credited Service</u>
	Less than 360	0.0
	360 – 539	0.2
	540 – 719	0.3
	720 – 899	0.4
	900 – 1,079	0.5
	1,080 – 1,259	0.6
	1,260 – 1,439	0.7
	1,440 – 1,619	0.8
	1,620 – 1,799	0.9
	1,800 or more	1.0
	No hours are credited for employment prior to November 20, 1984.	

Appendix A (Continued)

Accrued Benefit

A monthly life annuity equal to the benefit rate at termination multiplied by the number of Years of Credited Service.

Termination Date	Benefit Rate
11/1/1994 – 10/31/1995	\$21.00
11/1/1995 – 10/31/1996	22.00
11/1/1996 or later	24.00

Benefit accruals were frozen as of May 31, 2003.

Normal Retirement Benefit

Eligibility:

Age 65 or, if later, fifth anniversary of joining the Plan.

Monthly Benefit:

The Accrued Benefit.

Early Retirement Benefit

Eligibility:

Age 55 and 10 Years of Continuous Service.

Monthly Benefit:

The Accrued Benefit at early retirement actuarially reduced for retirement preceding age 65. Sample rates are as follows:

<u>Age</u>	<u>Rate</u>
55	43.4%
60	64.6
62	76.5
65	100.0

Disability Retirement Benefit

Eligibility:

Permanent and total disability at any age with at least five Years of Continuous Service.

Monthly Benefit:

The vested benefit commences in full at age 65, or in a reduced amount under the early retirement provisions.

Appendix A (Continued)

Termination Benefit	<p><u>Eligibility:</u></p>
	<p>Upon termination of employment prior to retirement after completion of at least five Years of Continuous Service.</p>
	<p><u>Monthly Benefit:</u></p>
	<p>The vested benefit commences in full at age 65, or in a reduced amount under the early retirement provisions.</p>
Death Benefit	<p><u>Eligibility:</u></p>
	<p>100% vested.</p>
	<p><u>Monthly Benefit:</u></p>
	<p>A monthly benefit for life commencing at the time the participant would have been eligible for retirement. The benefit is equal to 50% of the benefit vested on the date of death, adjusted as appropriate for early commencement and the 50% Joint and Survivor Annuity form of payment.</p>
Benefits Available as Lump Sums	<p>This plan pays only small benefit amounts (lump sums of \$5,000 or less).</p>
Maximum Benefit Limit	<p>The Internal Revenue Code Section 415 Maximum Benefit payable as a life annuity at Social Security Normal Retirement Age.</p>
Optional Forms of Benefit	<p>Life Annuity – payments for the lifetime of the participant only.</p>
	<p>50%, 75%, or 100% Joint and Survivor Annuity – reduced payments for the lifetime of the participant with the elected percentage continuing to the beneficiary named at the time of retirement.</p>
	<p>10 Year Certain – payments for the lifetime of the participant with a minimum of 120 payments guaranteed.</p>
	<p>All optional forms are actuarially equivalent and are based on the 1994 Group Annuity Reserving Table and a 6.00% interest rate.</p>

Appendix A (Continued)

<i>Optional Forms of Benefit (Cont'd)</i>	For Lump Sum purposes the conversion factors are generally calculated using a Stability Period equal to the Plan year, the Applicable Mortality Table for the year in which the Stability Period begins, and Segment Rate(s) based on all business days in the February immediately preceding the Stability Period (blended with old statutory rates as required). Lump Sum values will also be calculated using the mortality rates from Revenue Ruling 2001-62 (which are related to the 1994 Group Annuity Reserving Table) and a 6.00% interest rate and the higher amount will be payable.
<i>Changes in Plan Provisions</i>	None.