

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

2024

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024

- A This return/report is for: [X] a single-employer plan [] a multiple-employer plan (not multiemployer) (Pension Plan filers checking this box must attach Schedule MEP. Other plans must attach a list of participating employer information in accordance with the form instructions.)
B This return/report is [] the first return/report [X] 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)
D If the plan is a collectively-bargained plan, check here []
E If this is a retroactively adopted plan permitted by SECURE Act section 201, check here []

Part II Basic Plan Information—enter all requested information

1a Name of plan: ENGINEERED MATERIALS SOLUTIONS PENSION PLAN
1b Three-digit plan number (PN): 003
1c Effective date of plan: 11/14/2000
2a Plan sponsor's name (employer, if for a single-employer plan): EMS ENGINEERED MATERIALS SOLUTIONS, LLC
2b Employer Identification Number (EIN): 26-0752055
2c Sponsor's telephone number: 508-342-2196
2d Business code (see instructions): 332900
3a Plan administrator's name and address: [X] Same as Plan Sponsor.
3b Administrator's EIN
3c Administrator's telephone number
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report.
4b EIN
4d PN
5a Total number of participants at the beginning of the plan year: 77
5b Total number of participants at the end of the plan year: 0
5c(1) Number of participants with account balances as of the beginning of the plan year (only defined contribution plans complete this item)
5c(2) Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)
5d(1) Total number of active participants at the beginning of the plan year: 34
5d(2) Total number of active participants at the end of the plan year: 0
5e Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested: 0

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.

Table with 4 columns: SIGN HERE, Signature of plan administrator, Date, Enter name of individual signing as plan administrator. Includes entries for LISA DOHERTY dated 02/27/2025.

- 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
- If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year: 543692. (See instructions.)

Part III Financial Information			
7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	8179969	0
b Total plan liabilities	7b	0	0
c Net plan assets (subtract line 7b from line 7a)	7c	8179969	0
8 Income, Expenses, and Transfers for this Plan Year		(a) Amount	(b) Total
a Contributions received or receivable from:			
(1) Employers	8a(1)	1299481	
(2) Participants	8a(2)		
(3) Others (including rollovers)	8a(3)		
b Other income (loss)	8b	477964	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		1777445
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	9911265	
e Certain deemed and/or corrective distributions (see instructions) .	8e		
f Administrative service providers (salaries, fees, commissions)	8f		
g Other expenses	8g	46149	
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		9957414
i Net income (loss) (subtract line 8h from line 8c)	8i		-8179969
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: 1A 3H 1I 1H
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	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)	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		2000000
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			
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 lines 11a and b below.) If this is a defined contribution pension plan, leave line 11 blank and complete line 12 below. Yes No

a Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 **11a** 0

b PBGC missed contribution reporting requirements. If the plan is covered by PBGC and the amount reported on line 11a is greater than \$0, has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:
 Yes.
 No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.
 No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.
 No. Other. Provide explanation _____

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.) If this is a defined benefit pension plan, leave line 12 blank and complete line 11 above.

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

a If "Yes," enter the amount of any plan assets that reverted to the employer this year..... **13a** 0

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 IRS Compliance Questions

14a Does the plan satisfy the coverage and nondiscrimination tests of Code sections 410(b) and 401(a)(4) by combining this plan with any other plans under the permissive aggregation rules? Yes No

14b If this is a Code section 401(k) plan, check all boxes that apply to indicate how the plan is intended to satisfy the nondiscrimination requirements for employee deferrals and employer matching contributions (as applicable) under Code sections 401(k)(3) and 401(m)(2).
 Design-based safe harbor method
 "Prior year" ADP test
 "Current year" ADP test
 N/A

15 If the plan sponsor is an adopter of a pre-approved plan that received a favorable IRS Opinion Letter, enter the date of the Opinion Letter ___/___/___ (MM/DD/YYYY) and the Opinion Letter serial number _____.

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	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.	<small>OMB No. 1210-0110</small> 2024 This Form is Open to Public Inspection
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For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 07/31/2024

▶ **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>ENGINEERED MATERIALS SOLUTIONS PENSION PLAN</u>	B Three-digit plan number (PN) ▶	<u>003</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>EMS ENGINEERED MATERIALS SOLUTIONS, LLC</u>	D Employer Identification Number (EIN) <u>26-0752055</u>	
E Type of plan: <input checked="" type="checkbox"/> Single <input type="checkbox"/> Multiple-A <input type="checkbox"/> Multiple-B	F Prior year plan size: <input checked="" type="checkbox"/> 100 or fewer <input type="checkbox"/> 101-500 <input type="checkbox"/> More than 500	

Part I Basic Information

1	Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2024</u>		
2	Assets:		
	a Market value	2a	<u>8178828</u>
	b Actuarial value	2b	<u>8505950</u>
3	Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target
	a For retired participants and beneficiaries receiving payment	<u>30</u>	<u>3007844</u>
	b For terminated vested participants	<u>13</u>	<u>580514</u>
	c For active participants	<u>34</u>	<u>5838072</u>
	d Total	<u>77</u>	<u>9426430</u>
4	If the plan is in at-risk status, check the box and complete lines (a) and (b)..... <input type="checkbox"/>		
	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>4.75 %</u>
6	Target normal cost		
	a Present value of current plan year accruals	6a	<u>0</u>
	b Expected plan-related expenses	6b	<u>31083</u>
	c Target normal cost	6c	<u>31083</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	
Signature of actuary	<u>02/25/2025</u>
<u>JEFFREY C. LITER</u>	Date
Type or print name of actuary	<u>23-06544</u>
<u>THE ANGELL PENSION GROUP, INC.</u>	Most recent enrollment number
Firm name	<u>401-438-9250</u>
<u>88 BOYD AVENUE</u> <u>EAST PROVIDENCE, RI 02914</u>	Telephone number (including area code)
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	367648
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	367648
10	Interest on line 9 using prior year's actual return of <u>14.18</u> %	0	52132
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		2572
	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>4.90</u> %		126
	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		2698
	d Portion of (c) to be added to prefunding balance		2698
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	422478

Part III Funding Percentages			
14	Funding target attainment percentage	14	85.75 %
15	Adjusted funding target attainment percentage	15	85.75 %
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	83.07 %
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		
04/15/2024	47830	0					
07/16/2024	36632	0					
07/22/2024	48923	0					
11/01/2024	1031308	0					
11/21/2024	134788	0					
			Totals ▶	18(b)	1299481	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	1218856

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
0	0	0	0

Part V Assumptions Used to Determine Funding Target and Target Normal Cost				
21 Discount rate:				
a Segment rates:	1st segment: 4.75 %	2nd segment: 4.87 %	3rd segment: 5.59 %	<input type="checkbox"/> N/A, full yield curve used
b Applicable month (enter code)				21b 4
22 Weighted average retirement age				22 59
23 Mortality table(s) (see instructions)	<input checked="" type="checkbox"/> Prescribed - combined	<input type="checkbox"/> Prescribed - separate	<input type="checkbox"/> 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..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment..... <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
26 Demographic and benefit information				
a Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
b Is the plan required to provide a projection of expected benefit payments? If "Yes," see instructions regarding required attachment ... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 6c)				31a 31083
b Excess assets, if applicable, but not greater than line 31a				31b 0
32 Amortization installments:	Outstanding Balance		Installment	
a Net shortfall amortization installment	1342958		77691	
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 108774
	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 108774
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)				37 1218856
38 Present value of excess contributions for current year (see instructions)				
a Total (excess, if any, of line 37 over line 36)				38a 1110082
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 the American Rescue Plan Act of 2021 (See Instructions)				
41 If an election was made to use the extended amortization rule for a plan year beginning on or before December 31, 2021, check the box to indicate the first plan year for which the rule applies. <input type="checkbox"/> 2019 <input type="checkbox"/> 2020 <input type="checkbox"/> 2021				

Plan Name: Engineered Materials Solutions Pension Plan

EIN: 26-0752055

Plan Number: 003

Schedule SB, Line 26a -- Schedule of Active Participant Data																				
YEARS OF CREDITED SERVICE																				
Attained Age	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	
	No.	Avg. Comp*	No.	Avg. Comp*	No.	Avg. Comp*	No.	Avg. Comp*	No.	Avg. Comp*	No.	Avg. Comp*	No.	Avg. Comp*	No.	Avg. Comp*	No.	Avg. Comp*	No.	Avg. Comp*
Under 25	0		0		0		0		0		0		0		0		0		0	
25 to 29	0		0		0		0		0		0		0		0		0		0	
30 to 34	0		0		0		0		0		0		0		0		0		0	
35 to 39	0		0		0		0		0		0		0		0		0		0	
40 to 44	0		0		0		0		0		0		0		0		0		0	
45 to 49	0		0		0		0		0		0		1		0		0		0	
50 to 54	0		0		0		0		0		0		0		2		0		0	
55 to 59	0		0		0		0		0		0		0		0		4		2	
60 to 64	0		0		0		0		0		0		2		1		9		4	
65 to 69	0		0		0		0		0		0		0		0		0		5	
70 & up	0		0		0		0		0		0		0		0		1		3	
Total	0		0		0		0		0		0		3		3		14		14	

*The plan is "hard frozen", and average annual accrued benefits are reported in lieu of average annual compensation.

SECTION XII ACTUARIAL COST METHODS

Traditional Unit Credit (TUC)

The actuarial cost method used in the development of the minimum contribution was the unit credit cost method.

The normal cost is the sum of all the individual normal costs for each participant. For active participants, the individual normal cost is the present value of the benefit earned during the year being valued. For active participants whose credited service equals or exceeds the plan maximum, if any, and for non-active participants, the normal cost is zero.

The actuarial accrued liability is the sum of the individual accrued liabilities for all participants. The individual accrued liability for an active participant is the present value of the accrued benefit as of the valuation date. The unfunded liability is the actuarial accrued liability less the valuation assets.

The total annual cost of the plan is the normal cost plus an amount to amortize the shortfall amount.

Projected Unit Credit (PUC)

The actuarial cost method used in the development of the maximum contribution was the projected unit credit cost method.

Under this method, the normal cost is the sum of the individual normal costs for all participants. For an active participant, the individual normal cost is the present value at the current age of the projected benefit at the assumed retirement age, based on the actuarial assumptions, divided by the participant's expected years of credited service at that age. For a non-active participant, the normal cost is zero.

The actuarial accrued liability is the sum of the individual accrued liabilities for all plan participants. For an active participant, the individual accrued liability is the product of the normal cost and the total years of credited service at the current age. For non-active participants, the individual accrued liability is the present value at the current age of future benefits. The unfunded actuarial accrued liability equals the actuarial accrued liability less the valuation assets.

SECTION XIII
ACTUARIAL METHODS AND ASSUMPTIONS

A summary of the actuarial assumptions used in the valuation is presented below:

Valuation Assets

Average of fair market value of plan assets as of the current valuation date and as of the valuation date for each of the prior two plan years adjusted for contributions and distributions from the prior period to the current valuation date. The resulting amount is restricted to fall within 90% to 110% of the fair market value of assets [IRC. Sec. 430(g)(3)(B)]. This method is restricted such that the expected earnings are limited by Internal Revenue Code Regulations. Therefore, the resulting asset value may tend to be less than the fair market value of assets over a long period of time.

IRS Required Discount Rates

Minimum Required Contribution (as adjusted for MAP-21/HATFA/ARPA)

- | | |
|--|-------|
| 1. Segment Rate 1 for Years 1 Through 5 | 4.75% |
| 2. Segment Rate 2 for Years 6 Through 20 | 4.87% |
| 3. Segment Rate 3 for Years After 20 | 5.59% |

Maximum Deductible Contribution

- | | |
|--|-------|
| 1. Segment Rate 1 for Years 1 Through 5 | 3.62% |
| 2. Segment Rate 2 for Years 6 Through 20 | 4.46% |
| 3. Segment Rate 3 for Years After 20 | 4.52% |

Plan Effective Interest Rate 4.75%

Financial Accounting Standards Board ASC 960 Discount Rates and Mortality

Discount Rates

- | | |
|-----------------------------------|-------|
| 1. Pre-Retirement Discount Rate: | 6.75% |
| 2. Post-Retirement Discount Rate: | 6.75% |

Mortality Tables

- | | |
|---------------------------------------|---|
| 1. Employee Mortality - Male | Pri-2012 Blue Collar Male Employee Projected to 2023 with Scale BB, Male |
| Employee Mortality - Female | Pri-2012 Blue Collar Female Employee Projected to 2023 with Scale BB, Female |
| 2. Healthy Annuitant Mortality - Male | Pri-2012 Blue Collar Male Retiree Projected to 2023 with Scale BB, Male |
| Healthy Annuitant Mortality - Female | Pri-2012 Blue Collar Female Retiree Projected to 2023 with Scale BB, Female |
| 3. Beneficiary Mortality - Male | Pri-2012 Blue Collar Male Contingent Survivor Projected to 2023 with Scale BB, Male |
| Beneficiary Mortality - Female | Pri-2012 Blue Collar Female Contingent Survivor Projected to 2023 with Scale BB, Female |

SECTION XIII
ACTUARIAL METHODS AND ASSUMPTIONS (cont'd)

Salary Scale	Salary increases were not assumed in the valuation.
Taxable Wage Base Increase Assumption	No TWB increase was assumed in the valuation.
Social Security CPI Assumption	No CPI increase was assumed in the valuation.
Plan Benefit COLA Assumption	No COLA increase was assumed in the valuation.

Retirement Rates Retirement Rates were assumed in the valuation.

The following are sample retirement rates for various ages with 100% assumed to retire at age 65

	Male	Female
55	0.250000	0.250000
56	0.050000	0.050000
57	0.050000	0.050000
58	0.050000	0.050000
59	0.200000	0.200000
60	0.200000	0.200000
61	0.200000	0.200000
62	0.400000	0.400000
63	0.400000	0.400000
64	0.400000	0.400000
65	1.000000	1.000000

Termination Rates Termination Rates were assumed in the valuation.

The following are sample termination rates for various ages that apply to new hires:

	Male	Female
20	0.000000	0.000000
25	0.105000	0.105000
30	0.075700	0.075700
35	0.059100	0.059100
40	0.043500	0.043500
45	0.033400	0.033400
50	0.024100	0.024100
55	0.016400	0.016400
60	0.010800	0.010800

Disability Rates Disability Rates were not assumed in the valuation.

SECTION XIII
ACTUARIAL METHODS AND ASSUMPTIONS (cont'd)

Pre-Retirement Mortality Rates: Pre-Retirement Mortality was assumed in the valuation.

Male: 2024 IRS Combined Male

Female: 2024 IRS Combined Female

The following are sample pre-retirement mortality rates for various ages:

	Male	Female
20	0.000360	0.000100
25	0.000400	0.000140
30	0.000490	0.000180
35	0.000620	0.000260
40	0.000740	0.000370
45	0.000840	0.000480
50	0.001130	0.000700
55	0.002060	0.001380
60	0.004580	0.002990
65	0.008610	0.006190
70	0.014190	0.010820
75	0.024330	0.019750

Post-Retirement Mortality Rates: Post-Retirement Mortality was assumed in the valuation.

Male: 2024 IRS Combined Male

Female: 2024 IRS Combined Female

The following are sample post-retirement mortality rates for various ages:

	Male	Female
55	0.002060	0.001380
60	0.004580	0.002990
65	0.008610	0.006190
70	0.014190	0.010820
75	0.024330	0.019750
80	0.044420	0.037150
85	0.081260	0.065270
90	0.147330	0.117900
95	0.233190	0.190200
100	0.327880	0.278620
105	0.421910	0.375760
110	0.494480	0.462820

SECTION XIII
ACTUARIAL METHODS AND ASSUMPTIONS (cont'd)

Lump Sum Mortality Rates: The Applicable Mortality for lump sum distributions in the 2024 plan year is reflected in the valuation as follows:

Male and Female: 2024 IRS Applicable Mortality for Lump Sums

The following are sample post-retirement mortality rates for various ages:

Males and Females	
55	0.001720
60	0.003790
65	0.007400
70	0.012510
75	0.022040
80	0.040790
85	0.073270
90	0.132620
95	0.211700
100	0.303250
105	0.398840
110	0.478650

Administrative Expenses \$31,083

Percent Married 75% of males and 75% of females are assumed to be married.

Age of Spouse Spouses of Males are assumed to be 3 years younger than the participant.
Spouses of Females are assumed to be 3 years older than the participant.

Form of Payment Active plan participants are assumed to elect a lump sum form of payment upon termination or retirement. Terminated vested participants are assumed to elect a single life annuity.

SECTION XIII (Cont.)

SELECTION OF ACTUARIAL ASSUMPTIONS

Assumption		Entity Who Selects Assumption	Basis for Assumption Selection	Change in Assumption
Segment Interest Rates for Minimum Contribution	Segment 1: 4.75% Segment 2: 4.87% Segment 3: 5.59%	Prescribed by Internal Revenue Service (IRC Sec. 430(h)(2)(C))	The Funding Target Liability for Minimum Contribution is determined using three 24-month average interest rates ("segment rates"), each of which applies to cash flows during specified periods. The Plan Sponsor has elected a 4 month look back for determining these rates each Plan Year. These segment rates are adjusted by the applicable percentage of the 25-year average segment rates.	The segment 1, segment 2 and segment 3 interest rates changed from 4.75%, 5.00%, and 5.74%, respectively as of the prior measurement date, January 1, 2023, to reflect the current prescribed rates. This change increased the Funding Target Liability for Minimum Contribution as of the current measurement date, January 1, 2024, by 0.65%.
Segment Interest Rates for Maximum Contribution	Segment 1: 3.62% Segment 2: 4.46% Segment 3: 4.52%	Prescribed by Internal Revenue Service (IRC Sec. 404(o)(6))	The Funding Target Liability for Maximum Contribution is determined using three 24-month average interest rates ("segment rates"), each of which applies to cash flows during specified periods. The Plan Sponsor has elected a 4 month look back for determining these rates each Plan Year.	The segment 1, segment 2 and segment 3 interest rates changed from 1.41%, 3.09%, and 3.58%, respectively as of the prior measurement date, January 1, 2023, to reflect the current prescribed rates. This change decreased the Funding Target Liability for Maximum Contribution as of the current measurement date, January 1, 2024, by 11.66%.
PBGC Lump Sum Interest Rates	Pre-Retirement Lump Sum Interest: 4.00% Post-Retirement Lump Sum Interest: 2.00%	The Angell Pension Group, Inc.	This assumption was set based on a review of historical rates used to determine actuarial equivalence under the Plan.	None
ASC 960 Interest Rate	6.75% 4.68% for 417(e) Lump Sums	Engineered Materials Solutions, LLC	The ASC 960 interest rate is developed based on the allocation of the Plan's assets by investment class and the capital market outlook for each investment class. This information is provided by the Plan's investment advisor.	The ASC 960 interest rates were changed from 6.75% and 4.83% for 417(e) Lump Sums as of the prior measurement date, January 1, 2023. This change increased the Actuarial Present Value of Accrued Benefits as of the current measurement date, January 1, 2024, by 0.53%.
PBGC Lump Sum Interest Rates for ASC 960	Pre-Retirement Lump Sum Interest: 4.00% Post-Retirement Lump Sum Interest: 2.00%	Engineered Materials Solutions, LLC	This assumption was set based on a review of historical rates used to determine actuarial equivalence under the Plan. This assumption is set equal to the PBGC Lump Sum Interest Rates used for ASC 715 purposes as of the ASC 715 measurement date immediately preceding the valuation date.	None
Inflation Rate	3.00%	The Angell Pension Group, Inc.	Long-term CPI-U experience.	None
Salary Scale	N/A	N/A	Plan benefits are frozen and do not depend on future salary.	None
Taxable Wage Base Increase	N/A	N/A	Plan benefits are frozen and do not depend on future taxable wage base.	None
IRC 415 and 401(a)(17) Limit Projection	N/A	N/A	Projected increases to benefit and pay limits are not applicable under the Actuarial Funding Method used for the Funding Target Liability and the ASC 960 Actuarial Present Value of Accrued Benefits.	None

SECTION XIII (Cont.)

SELECTION OF ACTUARIAL ASSUMPTIONS

Assumption		Entity Who Selects Assumption	Basis for Assumption Selection	Change in Assumption
Pre-Retirement Mortality	2024 IRS Optional Combined (M/F) 2024 Applicable Mortality for Lump Sum forms of payment	Prescribed by Internal Revenue Service (IRC Sec. 430(h)(3) for Minimum and IRC Sec. 404(o)(6) for Maximum)	The IRS prescribes by regulation mortality tables to be used in determining minimum and maximum contributions. Those tables are based on the actual experience of pension plans and projected trends in that experience. Current prescribed tables are based on the RP-2014 Mortality Tables Report, adjusted for mortality improvement using Projection Scale MP-2021. Sponsors of small plans are permitted to use a combined table that applies the same mortality rates to both annuitants and nonannuitants.	The mortality tables changed from the 2023 IRS Optional Combined (M/F) and 2023 Applicable Mortality for Lump Sum forms of payment tables as of the prior measurement date, January 1, 2023, to reflect the current prescribed tables. This change, together with the change in post-retirement mortality, decreased the Funding Target Liability for Minimum Contribution and Maximum Contribution as of the current measurement date, January 1, 2024, by 0.77% and 0.96%, respectively.
Post-Retirement Mortality	2024 IRS Optional Combined (M/F) 2024 Applicable Mortality for Lump Sum forms of payment	Prescribed by Internal Revenue Service (IRC Sec. 430(h)(3) for Minimum and IRC Sec. 404(o)(6) for Maximum)	The IRS prescribes by regulation mortality tables to be used in determining minimum and maximum contributions. Those tables are based on the actual experience of pension plans and projected trends in that experience. Current prescribed tables are based on the RP-2014 Mortality Tables Report, adjusted for mortality improvement using Projection Scale MP-2021. Sponsors of small plans are permitted to use a combined table that applies the same mortality rates to both annuitants and nonannuitants.	The mortality tables changed from the 2023 IRS Optional Combined (M/F) and 2023 Applicable Mortality for Lump Sum forms of payment tables as of the prior measurement date, January 1, 2023, to reflect the current prescribed tables. This change, together with the change in pre-retirement mortality, decreased the Funding Target Liability for Minimum Contribution and Maximum Contribution as of the current measurement date, January 1, 2024, by 0.77% and 0.96%, respectively.
Pre-Retirement Mortality for ASC 960	Pri-2012 Blue Collar Employee Tables Projected to 2023 with Scale BB (M/F) 2023 Applicable Mortality for Lump Sum forms of payment	Engineered Materials Solutions, LLC	The Society of Actuaries published a study of retirement experience in October, 2020. The Pri-2012 tables presented in the study represent the most current and complete benchmarks of U.S. private pension plan mortality experience. These tables include projections of mortality improvement using Scale BB from 2006 to 2023.	The mortality tables changed from the Pri-2012 Blue Collar Employee Tables Projected to 2022 with Scale BB (M/F) and 2022 Applicable Mortality for Lump Sum forms of payment tables as of the prior measurement date, January 1, 2023. The change was made to reflect the best estimate of future experience under the plan. This change, together with the change in post-retirement mortality increased the Actuarial Present Value of Accrued Benefits as of the current measurement date, January 1, 2024 by 0.34%.
Post-Retirement Mortality for ASC 960	Pri-2012 Blue Collar Healthy Retiree and Contingent Survivor Tables Projected to 2023 with Scale BB (M/F) 2023 Applicable Mortality for Lump Sum forms of payment	Engineered Materials Solutions, LLC	The Society of Actuaries published a study of retirement experience in October, 2020. The Pri-2012 tables presented in the study represent the most current and complete benchmarks of U.S. private pension plan mortality experience. These tables include projections of mortality improvement using Scale BB from 2006 to 2023.	The mortality tables changed from the Pri-2012 Blue Collar Healthy Retiree and Contingent Survivor Tables Projected to 2022 with Scale BB (M/F) and 2022 Applicable Mortality for Lump Sum forms of payment tables as of the prior measurement date, January 1, 2023. The change was made to reflect the best estimate of future experience under the plan. This change, together with the change in pre-retirement mortality increased the Actuarial Present Value of Accrued Benefits as of the current measurement date, January 1, 2024 by 0.34%.
Disability Mortality	None	The Angell Pension Group, Inc.	The incidence of disability under the Plan is negligible.	None

SECTION XIII (Cont.)

SELECTION OF ACTUARIAL ASSUMPTIONS

Assumption		Entity Who Selects Assumption	Basis for Assumption Selection	Change in Assumption																				
Disability Rates	None	The Angell Pension Group, Inc.	The incidence of disability under the Plan is negligible.	None																				
Withdrawal Rates	Illustrative annual rates of withdrawal are as follows: <table border="1"> <thead> <tr> <th>Age</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>25</td> <td>10.50%</td> </tr> <tr> <td>30</td> <td>7.57%</td> </tr> <tr> <td>35</td> <td>5.91%</td> </tr> <tr> <td>40</td> <td>4.35%</td> </tr> <tr> <td>45</td> <td>3.34%</td> </tr> <tr> <td>50</td> <td>2.41%</td> </tr> <tr> <td>55</td> <td>1.64%</td> </tr> <tr> <td>60</td> <td>1.08%</td> </tr> <tr> <td>65</td> <td>0.64%</td> </tr> </tbody> </table>	Age	Rate	25	10.50%	30	7.57%	35	5.91%	40	4.35%	45	3.34%	50	2.41%	55	1.64%	60	1.08%	65	0.64%	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan.	None
Age	Rate																							
25	10.50%																							
30	7.57%																							
35	5.91%																							
40	4.35%																							
45	3.34%																							
50	2.41%																							
55	1.64%																							
60	1.08%																							
65	0.64%																							
Retirement Rates	Illustrative annual rates of retirement are as follows: <table border="1"> <thead> <tr> <th>Age</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>55</td> <td>25%</td> </tr> <tr> <td>56-58</td> <td>5%</td> </tr> <tr> <td>59-61</td> <td>20%</td> </tr> <tr> <td>62-64</td> <td>40%</td> </tr> <tr> <td>65</td> <td>100%</td> </tr> </tbody> </table>	Age	Rate	55	25%	56-58	5%	59-61	20%	62-64	40%	65	100%	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan.	None								
Age	Rate																							
55	25%																							
56-58	5%																							
59-61	20%																							
62-64	40%																							
65	100%																							
Form of Payment	Active plan participants are assumed to elect a lump sum form of payment upon termination or retirement. Terminated vested participants are assumed to elect a single life annuity.	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan and general experience from similarly situated plans.	None																				
Administrative Expenses	Equals the amount of Plan-related expenses paid from Plan assets in the prior Plan year.	The Angell Pension Group, Inc.	Internal Revenue Service regulations require the Target Normal Cost to be increased by the amount of Plan-related expenses expected to be paid from Plan assets during the Plan year. Our best estimate of these expenses is the actual amount of Plan-related expenses paid from Plan assets in the prior Plan year.	None																				
Percent Married	75% of males and 75% of females are assumed to be married.	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan.	None																				
Age of Spouse	The female spouse is assumed to be 3 years younger than the male spouse.	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan and general experience from similarly situated plans.	None																				

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

2024

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024

A This return/report is for: a single-employer plan a multiple-employer plan (not multiemployer) (Pension Plan filers checking this box must attach Schedule MEP. Other plans must attach a list of participating employer information in accordance with the form instructions.)

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)

D If the plan is a collectively-bargained plan, check here ▶

E If this is a retroactively adopted plan permitted by SECURE Act section 201, check here ▶

Part II Basic Plan Information—enter all requested information

1a Name of plan ENGINEERED MATERIALS SOLUTIONS PENSION PLAN	1b Three-digit plan number (PN) ▶ 003
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) EMS ENGINEERED MATERIALS SOLUTIONS, LLC 39 PERRY AVENUE ATTLEBORO MA 02703-2417	1c Effective date of plan 11/14/2000
	2b Employer Identification Number (EIN) 26-0752055
	2c Sponsor's telephone number 508-342-2196
	2d Business code (see instructions) 332900
3a Plan administrator's name and address <input checked="" type="checkbox"/> Same as Plan Sponsor.	3b Administrator's EIN
	3c Administrator's telephone number
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report. a Sponsor's name c Plan Name	4b EIN
	4d PN
5a Total number of participants at the beginning of the plan year	5a 77
b Total number of participants at the end of the plan year.....	5b 0
c(1) Number of participants with account balances as of the beginning of the plan year (only defined contribution plans complete this item)	5c(1)
c(2) Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	5c(2)
d(1) Total number of active participants at the beginning of the plan year.....	5d(1) 34
d(2) Total number of active participants at the end of the plan year.....	5d(2) 0
e Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested.....	5e 0

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	<i>Lisa Doherty</i>	2/27/25	LISA DOHERTY
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE	<i>Lisa Doherty</i>	2/27/25	LISA DOHERTY
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor

- 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
- If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 543692. (See instructions.)

Part III Financial Information			
7		(a) Beginning of Year	(b) End of Year
a	Total plan assets	8,179,969	0
b	Total plan liabilities	0	0
c	Net plan assets (subtract line 7b from line 7a).....	8,179,969	0
8		(a) Amount	(b) Total
a	Contributions received or receivable from:		
	(1) Employers	1,299,481	
	(2) Participants.....		
	(3) Others (including rollovers).....		
b	Other income (loss).....	477,964	
c	Total income (add lines 8a(1), 8a(2), 8a(3), and 8b).....		1,777,445
d	Benefits paid (including direct rollovers and insurance premiums to provide benefits).....	9,911,265	
e	Certain deemed and/or corrective distributions (see instructions).....		
f	Administrative service providers (salaries, fees, commissions).....		
g	Other expenses.....	46,149	
h	Total expenses (add lines 8d, 8e, 8f, and 8g).....		9,957,414
i	Net income (loss) (subtract line 8h from line 8c).....		-8,179,969
j	Transfers to (from) the plan (see instructions)		

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: 1A 3H 1I 1H
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		Yes	No	Amount
a	Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program)		X	
b	Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 10a.).....		X	
c	Was the plan covered by a fidelity bond?	X		2,000,000
d	Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?		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.).....		X	
f	Has the plan failed to provide any benefit when due under the plan?		X	
g	Did the plan have any participant loans? (If "Yes," enter amount as of year-end.)		X	
h	If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)			
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.....			

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 lines 11a and b below.) If this is a defined contribution pension plan, leave line 11 blank and complete line 12 below. Yes No

a Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 **11a** 0

b PBGC missed contribution reporting requirements. If the plan is covered by PBGC and the amount reported on line 11a is greater than \$0, has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:
 Yes.
 No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.
 No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.
 No. Other. Provide explanation _____

12 Is this a defined contribution plan subject to the minimum funding requirements of section 412 of the Code or section 302 of ERISA? (If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.) If this is a defined benefit pension plan, leave line 12 blank and complete line 11 above. Yes No

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

a If "Yes," enter the amount of any plan assets that reverted to the employer this year. **13a** 0

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 IRS Compliance Questions

14a Does the plan satisfy the coverage and nondiscrimination tests of Code sections 410(b) and 401(a)(4) by combining this plan with any other plans under the permissive aggregation rules? Yes No

14b If this is a Code section 401(k) plan, check all boxes that apply to indicate how the plan is intended to satisfy the nondiscrimination requirements for employee deferrals and employer matching contributions (as applicable) under Code sections 401(k)(3) and 401(m)(2).
 Design-based safe harbor method
 "Prior year" ADP test
 "Current year" ADP test
 N/A

15 If the plan sponsor is an adopter of a pre-approved plan that received a favorable IRS Opinion Letter, enter the date of the Opinion Letter (MM/DD/YYYY) and the Opinion Letter serial number _____

**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

2024

This Form is Open to Public Inspection

For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 07/31/2024

▶ **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 ENGINEERED MATERIALS SOLUTIONS PENSION PLAN	B Three-digit plan number (PN) ▶	003
--	---	-----

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF EMS ENGINEERED MATERIALS SOLUTIONS, LLC	D Employer Identification Number (EIN) 26-0752055
---	---

E Type of plan: <input checked="" type="checkbox"/> Single <input type="checkbox"/> Multiple-A <input type="checkbox"/> Multiple-B	F Prior year plan size: <input checked="" type="checkbox"/> 100 or fewer <input type="checkbox"/> 101-500 <input type="checkbox"/> More than 500
---	---

Part I Basic Information

1 Enter the valuation date: Month 01 Day 01 Year 2024

2 Assets:	
a Market value	2a 8,178,828
b Actuarial value	2b 8,505,950

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	30	3,007,844	3,007,844
b For terminated vested participants	13	580,514	580,514
c For active participants	34	5,838,072	5,838,072
d Total	77	9,426,430	9,426,430

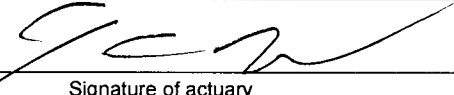
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)

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** 4.75%

6 Target normal cost	
a Present value of current plan year accruals	6a 0
b Expected plan-related expenses	6b 31,083
c Target normal cost	6c 31,083

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>February 25, 2025</u>
	Signature of actuary	Date

<u>JEFFREY C. LITER</u>	<u>2306544</u>
Type or print name of actuary	Most recent enrollment number
<u>THE ANGELL PENSION GROUP, INC.</u>	<u>401-438-9250</u>
Firm name	Telephone number (including area code)

88 BOYD AVENUE
EAST PROVIDENCE RI 02914
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 V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:

a Segment rates:

1st segment: 4.75 %	2nd segment: 4.87 %	3rd segment: 5.59 %	<input type="checkbox"/> N/A, full yield curve used
------------------------	------------------------	------------------------	---

b Applicable month (enter code)..... **21b** 4

22 Weighted average retirement age **22** 59

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 Demographic and benefit information

a Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment..... Yes No

b Is the plan required to provide a projection of expected benefit payments? 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 6c)..... **31a** 31,083

b Excess assets, if applicable, but not greater than line 31a **31b** 0

32 Amortization installments:

	Outstanding Balance	Installment
a Net shortfall amortization installment	1,342,958	77,691
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** 108,774

	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).....			108,774
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c).....			1,218,856
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36).....			1,110,082
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances			0
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37).....			0
40 Unpaid minimum required contributions for all years			0

Part IX Pension Funding Relief Under the American Rescue Plan Act of 2021 (See Instructions)

41 If an election was made to use the extended amortization rule for a plan year beginning on or before December 31, 2021, check the box to indicate the first plan year for which the rule applies. 2019 2020 2021

Engineered Materials Solutions Pension Plan
EIN: 26-0752055; Plan Number: 003
2024 Schedule SB, line 19 - Discounted Employer Contributions

(1)	(2)	(3)	(4a)	(4b)	(5)
Date (MM-DD-YYYY)	Amount paid by employer(s)	Year to which Contribution is Applied	<u>Applicable Effective Interest Rate</u>		Interest Adjusted Contribution
			Applicable Effective Interest Rate	Increased Rate for late quarterly installments	
4/15/2024	32,632	2024	4.87%		1 \$32,190
4/15/2024	15,198	2024	4.87%		2 14,992
7/16/2024	17,434	2024	4.87%	9.87%	2 16,991
7/16/2024	19,198	2024	4.87%		3 18,713
7/22/2024	13,434	2024	4.87%		3 13,084
7/22/2024	35,489	2024	4.87%		7 34,565
11/1/2024	1,031,308	2024	4.87%		7 991,240
11/21/2024	134,788	2024	4.87%		7 129,215
TOTALS:	\$1,299,481				\$1,250,990

Valuation Date:
1/1/2024

NOTES: footnote before column (5) describes due date for Quarterly Contribution
"1" is for 4/15/2024 due date
"2" is for 7/15/2024 due date
"3" is for 8/15/2024 due date (accelerated due to short plan year)
"7" is not subject to Quarterly Contributions

Engineered Materials Solutions Pension Plan

EIN: 26-0752055; Plan Number: 003

2024 Schedule SB, line 22 - Description of Weighted Average Retirement Age

(1)	(2)	(3)	(4)	(5)
Age	Absolute Retirement Rate	Cumulative Probability of Not Having Retired	Probability of Employee Age 55 Retiring at Age(x)	(1) x (4)
55	25%	75.00%	25.00%	13.75
56	5%	71.25%	3.75%	2.10
57	5%	67.69%	3.56%	2.03
58	5%	64.30%	3.38%	1.96
59	20%	51.44%	12.86%	7.59
60	20%	41.15%	10.29%	6.17
61	20%	32.92%	8.23%	5.02
62	40%	19.75%	13.17%	8.16
63	40%	11.85%	7.90%	4.98
64	40%	7.11%	4.74%	3.03
65	100%	0.00%	7.11%	4.62
TOTALS:			100.00%	59.42

*

* Average Assumed Retirement Age

Summary of Plan Provisions

Plan Effective Date: November 14, 2000

Most Recent Amendment: The plan was amended to terminate effective July 31, 2024.

Eligibility Requirements: Any employee whose accrued benefit under the TI Employees Pension Plan was transferred to this Plan is eligible to participate as of November 14, 2000. There will be no new entrants in the Plan after November 14, 2000.

Employees hired by Texas Instruments (TI) on or before November 30, 1997 who elected not to join the TI U.S. Employees Retirement and Profit-Sharing Plan will continue to earn benefits under the Plan. Pursuant to Article XV, Employees hired on or before November 30, 1997 who elected to join the TI U.S. Employees Retirement and Profit-Sharing Plan had their benefit frozen as of December 31, 1997.

*Credited Service for
Benefit Accrual:*

Years and completed days of the Participant's service on or after November 14, 2000, plus the number of years and completed days of Credited Service for Benefit Accrual of the Participant as of November 13, 2000 pursuant to the terms of the TI Pension Plan. Credited Service for Benefit Accrual ceased as of December 31, 1997 for Employees who elected to join the TI U.S. Employees Retirement and Profit-Sharing Plan.

Benefit accruals under the plan were frozen as of May 11, 2009.

*Credited Service
for Vesting:*

A twelve consecutive-month period commencing on an Employee's date of employment or any anniversary of such date during which the Employee completes at least one thousand hours of service (subject to some exclusions). Special rules exist for certain part time workers.

Normal Retirement Date: The date of the participant's 65th birthday.

Compensation: The total compensation paid for the plan year, including 401(k) and Section 125 contributions.

For plan years beginning after 12/31/93, no more than \$150,000 of compensation will be considered for plan purposes. This limit of \$150,000 is subject to adjustment by the Secretary of the Treasury or his delegate. Effective January 1, 2009, the limit is \$245,000.

Summary of Plan Provisions (continued)

- Final Average Earnings:* The lesser of (a) the average of the annual Compensation, up to each year's Social Security Wage Base, for the most recent period of 3 consecutive calendar years ending with the year preceding the year of termination of employment, or (b) the Participant's Covered Compensation.
- Average Credited Earnings:* Compensation averaged over the highest 5 consecutive years producing the highest average prior to termination of employment. Any calendar year in which the Participant did not receive a full year of Benefit Service credit shall be disregarded for purposes of this calculation, except if its inclusion would result in a higher average.
- Covered Compensation:* The average of the Social Security Wage Bases for the 35 calendar years ending with the year in which the participant attains social security retirement age.
- Retirement Benefit:* The greater of (a) or (b):
- (a) (1) less (2) below:
 - (1) 1.5% of the average credited earnings multiplied by credited service for benefit accrual (CSBA);
 - (2) the product of the following factors: (i) retirement age factor; (ii) final average earnings; (iii) CSBA at normal retirement date, or actual retirement date if later (maximum of 35 years); (iv) the ratio, not greater than 1.0, of the CSBA at termination to CSBA at normal retirement.
 - (b) \$84 multiplied by CSBA
- Benefit accruals under the plan were frozen as of May 11, 2009.
- Normal Form of Benefit:* Life Annuity
- Retirement Age Factor:* For employees born before 1938, 0.0075; for employees born between January 1, 1938, and December 31, 1954, 0.0070; and, for employees born after January 1, 1955, 0.0065. For commencement of benefits at ages prior to 65, the factor is adjusted as follows (interpolated for non-integral ages.)

Summary of Plan Provisions (continued)

<u>Age at Commencement</u>	<u>Factor Based on Commencement Age If Social Security Retirement Age Is</u>		
	<u>65</u>	<u>66</u>	<u>67</u>
65	0.750	0.700	0.650
64	0.700	0.650	0.600
63	0.650	0.600	0.550
62	0.600	0.550	0.500
61	0.550	0.500	0.475
60	0.500	0.475	0.450
59	0.475	0.450	0.425
58	0.450	0.425	0.400
57	0.425	0.400	0.375
56	0.400	0.375	0.344
55	0.375	0.344	0.316

Late Retirement: Participants who continue employment after their Normal Retirement Date are eligible for a late retirement benefit equal to the greater of the accrued benefit determined at actual retirement date and the actuarial equivalence of their Normal Retirement Benefit.

Early Retirement: A participant who has attained age 60 with 5 Years of Service, or age 55 with 20 Years of Service may retire and receive an early retirement benefit. The amount of the Early Retirement Benefit is equal to the participant's Accrued Benefit reduced by 1/3% for each of the first 60 months for which payment shall be made before age 65 and 7/24% for each of the next 60 months, except for the portion under (a)(2) of the formula, as described under Retirement Benefit, since the retirement age factor has been adjusted for early commencement.

Survivor Benefit: Upon the death of an active participant who has met the requirements for a deferred vested benefit, the designated beneficiary shall receive a qualified preretirement survivor annuity.

Disability Benefit: A participant who has completed 5 years of service for vesting and becomes totally and permanently disabled prior to age 65 shall continue to earn Credited Service for Benefit Accrual.

Vesting: Based on Years of Service, subject to the following schedule:

<u>Years of Service</u>	<u>Vested Percentage</u>
Less than 5 years	0%
5 years or more	100%

Notwithstanding the above vesting schedule, a participant will become 100% vested upon reaching the Normal Retirement Date.

SECTION V
AMORTIZATION BASES UNDER SECTION 430 OF THE IRS CODE

Shortfall Amortization Bases

<u>Description</u>	<u>Date Base Established</u>	<u>Initial Base</u>	<u>Initial Years</u>	<u>Remaining Years</u>	<u>Present Value of Remaining Payments</u>	<u>Amortization Amount</u>
2024 Shortfall	01/01/2024	\$ 1,342,958	15	15	\$ (264,167)	\$ (24,034)
Shortfall	01/01/2023	840,521	15	14	806,515	76,976
Shortfall	01/01/2022	871,705	15	13	<u>800,610</u>	<u>80,556</u>
Subtotal - Shortfall Bases					\$ 1,342,958	\$ 77,691*

Total Amortization Bases **\$ 1,342,958** **\$ 77,691***

* Due to the plan termination effective July 31, 2024, a short plan year is created and the shortfall amortization payments are prorated as follows: $(\$157,532 - \$24,034) \times (213/366) = \$77,691$.

Changes In Actuarial Methods

Automatic approval under IRS Regulation 1.430(a)-(1)(b)(5) for short plan year as a result of plan termination.