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

2018

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A This return/report is for:
- [X] 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:
- [X] Form 5558
- [ ] automatic extension
- [ ] DFVC program
- [ ] special extension (enter description)

Part II Basic Plan Information—enter all requested information

1a Name of plan
RETIREMENT PLAN OF GCP APPLIED TECHNOLOGIES INC. CHEMICAL GROUP (CAMBRIDGE PLANT)

1b Three-digit plan number (PN) ▶ 051

1c Effective date of plan 01/01/1963

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)
GCP APPLIED TECHNOLOGIES INC.

62 WHITTEMORE AVENUE
CAMBRIDGE, MA 02140

2b Employer Identification Number (EIN) 47-3936076

2c Sponsor's telephone number 617-876-1400

2d Business code (see instructions) 325100

3a Plan administrator's name and address [X] Same as Plan Sponsor.

3b Administrator's EIN

3c Administrator's telephone number

4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report.
a Sponsor's name
c Plan Name

4b EIN

4d PN

5a Total number of participants at the beginning of the plan year	**5a**	58
b Total number of participants at the end of the plan year	**5b**	56
c Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**5c**	
d(1) Total number of active participants at the beginning of the plan year	**5d(1)**	8
d(2) Total number of active participants at the end of the plan year	**5d(2)**	7
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	Filed with authorized/valid electronic signature.	10/10/2019	CHARLOTTE MERRELL
	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

6a Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) [X] 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.) [X] 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)? [X] Yes [ ] No [ ] Not determined

If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 4158982. (See instructions.)

Part III Financial Information

7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	5164686	4592429
b Total plan liabilities	7b		
c Net plan assets (subtract line 7b from line 7a)	7c	5164686	4592429
8 Income, Expenses, and Transfers for this Plan Year		**(a) Amount**	**(b) Total**
a Contributions received or receivable from: (1) Employers	8a(1)		
(2) Participants	8a(2)		
(3) Others (including rollovers)	8a(3)		
b Other income (loss)	8b	-236203	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		-236203
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	305539	
e Certain deemed and/or corrective distributions (see instructions)	8e		
f Administrative service providers (salaries, fees, commissions)	8f		
g Other expenses	8g	30515	
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		336054
i Net income (loss) (subtract line 8h from line 8c)	8i		-572257
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

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? (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		15000000
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)	[X] 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? (If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.)	[ ] Yes [X] 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 [X] 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 [X] 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)

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

2018

This Form is Open to Public Inspection

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

▶ **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
RETIREMENT PLAN OF GCP APPLIED TECHNOLOGIES INC. CHEMICAL GROUP (CAMBRIDGE PLANT)

B Three-digit plan number (PN) ▶ 051

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
GCP APPLIED TECHNOLOGIES INC.

D Employer Identification Number (EIN)
47-3936076

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

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

Part I Basic Information

1 Enter the valuation date: Month 01 Day 01 Year 2018

2 Assets:

a Market value	**2a**	5164686
b Actuarial value	**2b**	4861800

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	38	3264337	3264337
b For terminated vested participants	12	641327	641327
c For active participants	8	392201	436643
d Total	58	4297865	4342307

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**	5.63 %
6 Target normal cost	**6**	83893

Statement by Enrolled Actuary

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

SIGN HERE

Signature of actuary — Date: 09/17/2019

TRICIA SCHWABENBAUER — Type or print name of actuary

17-07200 — Most recent enrollment number

AON CONSULTING, INC. — Firm name

410-547-2990 — Telephone number (including area code)

500 EAST PRATT STREET
BALTIMORE, MD 21202

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	550664
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	110868
9	Amount remaining (line 7 minus line 8)	0	439796
10	Interest on line 9 using prior year's actual return of 16.40 %	0	72127
11	Prior year's excess contributions to be added to prefunding balance:		
a	Present value of excess contributions (line 38a from prior year)		802009
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 5.85%		40432
b(2)	Interest on line 38b from prior year Schedule SB, using prior year's actual return		18182
c	Total available at beginning of current plan year to add to prefunding balance		860623
d	Portion of (c) to be added to prefunding balance		860623
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	1372546

Part III Funding Percentages

14	Funding target attainment percentage	14	80.35%
15	Adjusted funding target attainment percentage	15	111.96%
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	80.00%
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
			Totals ► 18(b)	0	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	0

20 Quarterly contributions and liquidity shortfalls:

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

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

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

Liquidity shortfall as of end of quarter of this plan year

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

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

21 Discount rate:

a Segment rates:

1st segment:	2nd segment:	3rd segment:	
3.92%	5.52%	6.29%	☐ N/A, full yield curve used

b Applicable month (enter code) — **21b**: 4

22 Weighted average retirement age — **22**: 63

23 Mortality table(s) (see instructions)

Prior regulation: ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

Current regulation: ☐ 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**	83893
b Excess assets, if applicable, but not greater than line 31a	**31b**	0

32 Amortization installments:

	Outstanding Balance	Installment
a Net shortfall amortization installment	853053	130362
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**	214255

	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	247820	247820

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**	0

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

a Total (excess, if any, of line 37 over line 36)	**38a**	0
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

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

Schedule SB, line 26—Schedule of Active Participant Data as of January 1, 2018

Number of Participants

Attained Age	Years of Credited Service									
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+
<25										
25-29										
30-34										
35-39										
40-44					1					
45-49										
50-54		2				1				
55-59		1			1			1		
60-64				1						
65-69										
70+										

N-8

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

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

Interest Rates for Minimum Funding Purposes	Based on segment rates with a four-month lookback (as of September 2017), each adjusted as needed to fall within the 25-year average interest rate stabilization corridor
1st Segment Rate	3.92%
2nd Segment Rate	5.52%
3rd Segment Rate	6.29%
Interest Rates for Maximum Tax Purposes	Based on segment rates with a four-month lookback (as of September 2017), without regard to interest rate stabilization
1st Segment Rate	1.75%
2nd Segment Rate	3.76%
3rd Segment Rate	4.66%
Retirement Age	
Active Participants	See Table 1.
Terminated Vested Participants	See Table 2.
Mortality Rates	
Healthy and Disabled	2018 static mortality table (with new basis adoption deferred to 2019) for annuitants and non-annuitants per §1.430(h)(3)-1(e).
Withdrawal Rates	See Table 3.
Disability Rates	See Table 4.
Form of Benefit Payment	See Table 5.
Decrement Timing	Beginning of year decrements.
Surviving Spouse Benefit	It is assumed that 80% of males and 80% of females have an eligible spouse, and that males are three years older than their spouses.
Benefit Limits	Projected benefits are limited by the current IRC section 415 maximum benefit of $220,000.

Valuation of Plan Assets	Smoothed fair market value of assets over the current and prior two years, adjusted for contributions, benefit payments, administrative expenses, and expected earnings. The average value of assets calculated in this manner is further limited to not less than 90% nor more than 110% of fair market value. A characteristic of this method is that the expected distribution of the value of plan assets is skewed toward understatement relative to the corresponding market values for expected long-term rates of return in excess of the third segment rate under IRC section 430(h)(2)(C)(iii).
Expected Return on Assets	
2016 Plan Year	6.25% The applicable third segment rate limitation is 6.65%.
2017 Plan Year	6.25% The applicable third segment rate limitation is 6.48%.
2018 Plan Year	6.00% The applicable third segment rate limitation is 6.29%.
Trust Expenses Included in Target Normal Cost	$67,134, actual expenses from prior year with a 5.00% load
Actuarial Method	Standard unit credit cost method
Valuation Date	January 1, 2018

Table 1

Retirement Rates—Active Participants

Age	Rate
55	6.00%
56	5.00%
57	6.00%
58	6.00%
59	6.00%
60	7.00%
61	9.00%
62	12.00%
63	16.00%
64	24.00%
65	31.00%
66	29.00%
67	27.00%
68	26.00%
69	33.00%
70+	100.00%

Table 2

Retirement Rates—Terminated Vested Participants

Age	Rate
55	15.00%
56	5.00%
57	5.00%
58	5.00%
59	6.00%
60	6.00%
61	10.00%
62	20.00%
63	10.00%
64	15.00%
65+	100.00%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

Table 3—Page 1 of 2

Withdrawal Rates

	Years of Service			
Age	**0-1**	**2-4**	**5-9**	**10+**
20	18.00%	14.00%	0.00%	0.00%
21	22.00%	18.00%	0.00%	0.00%
22	21.00%	21.00%	15.00%	0.00%
23	23.00%	18.00%	15.00%	0.00%
24	27.00%	18.00%	14.00%	0.00%
25	27.00%	16.00%	13.00%	0.00%
26	24.00%	16.00%	13.00%	0.00%
27	19.00%	14.00%	13.00%	0.00%
28	14.00%	15.00%	12.00%	11.00%
29	13.00%	14.00%	12.00%	11.00%
30	16.00%	13.00%	9.00%	12.00%
31	13.00%	14.00%	10.00%	13.00%
32	12.00%	14.00%	10.00%	8.00%
33	12.00%	12.00%	10.00%	8.00%
34	15.00%	12.00%	9.00%	7.00%
35	12.00%	13.00%	10.00%	6.00%
36	16.00%	12.00%	9.00%	7.00%
37	16.00%	11.00%	9.00%	6.00%
38	16.00%	10.00%	7.00%	6.00%
39	10.00%	11.00%	7.00%	6.00%
40	9.00%	9.00%	8.00%	6.00%
41	8.00%	8.00%	8.00%	6.00%
42	10.00%	8.00%	8.00%	6.00%
43	10.00%	10.00%	8.00%	5.00%
44	10.00%	8.00%	8.00%	6.00%

Table 3—Page 2 of 2

Withdrawal Rates

	Years of Service			
Age	**0-1**	**2-4**	**5-9**	**10+**
45	12.00%	9.00%	7.00%	5.00%
46	10.00%	10.00%	6.00%	5.00%
47	12.00%	12.00%	5.00%	4.00%
48	14.00%	13.00%	4.00%	4.00%
49	15.00%	12.00%	6.00%	4.00%
50	12.00%	12.00%	6.00%	3.00%
51	12.00%	11.00%	6.00%	3.00%
52	11.00%	10.00%	7.00%	3.00%
53	10.00%	9.00%	8.00%	3.00%
54	11.00%	8.00%	7.00%	3.00%
55+	0.00%	0.00%	0.00%	0.00%

Table 4

Disability Rates

Age	Rate	Age	Rate
18	0.04%	45	0.16%
19	0.04%	46	0.19%
		47	0.22%
20	0.04%	48	0.26%
21	0.04%	49	0.29%
22	0.04%		
23	0.04%	50	0.33%
24	0.04%	51	0.37%
		52	0.41%
25	0.04%	53	0.45%
26	0.05%	54	0.50%
27	0.05%		
28	0.05%	55	0.55%
29	0.05%	56	0.61%
		57	0.72%
30	0.05%	58	0.83%
31	0.05%	59	0.91%
32	0.05%		
33	0.06%	60	1.04%
34	0.06%	61	1.19%
		62	1.37%
35	0.06%	63	1.57%
36	0.07%	64	2.04%
37	0.07%		
38	0.07%	65+	0.00%
39	0.08%		
40	0.08%		
41	0.09%		
42	0.09%		
43	0.10%		
44	0.13%		

Table 5

Form of Benefit Payment

Payment Form	Probability
5 Year Certain and Life	50.00%
100% Joint and Survivor Annuity	20.00%
75% Joint and Survivor Annuity	5.00%
66% Joint and Survivor Annuity	10.00%
50% Joint and Survivor Annuity	15.00%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

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

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▶ Complete all entries in accordance with the instructions to the Form 5500-SF.

OMB Nos. 1210-0110
1210-0089

2018

This Form is Open to Public Inspection

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For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A This return/report is for:
- [X] 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.)
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- [ ] 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:
- [X] Form 5558
- [ ] automatic extension
- [ ] DFVC program
- [ ] special extension (enter description)

Part II Basic Plan Information—enter all requested information

1a Name of plan
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)

1b Three-digit plan number (PN) ▶ 051

1c Effective date of plan 01/01/1963

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)
GCP Applied Technologies Inc.

62 Whittemore Avenue

Cambridge MA 02140

2b Employer Identification Number (EIN) 47-3936076

2c Sponsor's telephone number 617-876-1400

2d Business code (see instructions) 325100

3a Plan administrator's name and address [X] Same as Plan Sponsor.

3b Administrator's EIN

3c Administrator's telephone number

4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report.
- **a** Sponsor's name
- **c** Plan Name

4b EIN

4d PN

5a Total number of participants at the beginning of the plan year	5a	58
b Total number of participants at the end of the plan year	5b	56
c Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	5c	
d(1) Total number of active participants at the beginning of the plan year	5d(1)	8
d(2) Total number of active participants at the end of the plan year	5d(2)	7
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	Charlotte Merrell	10/10/19	Charlotte Merrell
	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

6a Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) [X] 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.) [X] 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)? [X] Yes [ ] No [ ] Not determined

If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 4158982. (See instructions.)

Part III Financial Information

7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	5,164,686	4,592,429
b Total plan liabilities	7b		
c Net plan assets (subtract line 7b from line 7a)	7c	5,164,686	4,592,429
8 Income, Expenses, and Transfers for this Plan Year		**(a) Amount**	**(b) Total**
a Contributions received or receivable from: (1) Employers	8a(1)		
(2) Participants	8a(2)		
(3) Others (including rollovers)	8a(3)		
b Other income (loss)	8b	-236,203	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		-236,203
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	305,539	
e Certain deemed and/or corrective distributions (see instructions)	8e		
f Administrative service providers (salaries, fees, commissions)	8f		
g Other expenses	8g	30,515	
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		336,054
i Net income (loss) (subtract line 8h from line 8c)	8i		-572,257
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

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? (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		15,000,000
d Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	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)		[X] 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? (If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.)		[ ] Yes [X] 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 [X] 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 [X] 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.

13c(1) Name of plan(s):	**13c(2)** EIN(s)	**13c(3)** PN(s)

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

2018

This Form is Open to Public Inspection

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

▶ **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
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)

B Three-digit plan number (PN) ▶ 051

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
GCP Applied Technologies, Inc.

D Employer Identification Number (EIN)
47-3936076

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

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

Part I Basic Information

1 Enter the valuation date: Month 01 Day 01 Year 2018

2 Assets:

a Market value	**2a**	5,164,686
b Actuarial value	**2b**	4,861,800

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	38	3,264,337	3,264,337
b For terminated vested participants	12	641,327	641,327
c For active participants	8	392,201	436,643
d Total	58	4,297,865	4,342,307

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**	5.63%
6 Target normal cost	**6**	83,893

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

Tricia Schwabenbauer TS

Signature of actuary

09/17/2019

Date

Tricia Schwabenbauer

Type or print name of actuary

1707200

Most recent enrollment number

Aon Consulting, Inc.

Firm name

410-547-2990

Telephone number (including area code)

500 East Pratt Street

Baltimore MD 21202

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	550,664
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	110,868
9	Amount remaining (line 7 minus line 8)	0	439,796
10	Interest on line 9 using prior year's actual return of 16.40%	0	72,127
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		802,009
	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 5.85%		40,432
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		18,182
	c Total available at beginning of current plan year to add to prefunding balance		860,623
	d Portion of (c) to be added to prefunding balance		860,623
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	1,372,546

Part III Funding Percentages

14	Funding target attainment percentage	14	80.35%
15	Adjusted funding target attainment percentage	15	111.96%
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	80.00%
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
			Totals ► 18(b)	0	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	0

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:

	1st segment:	2nd segment:	3rd segment:	
a Segment rates:	3.92 %	5.52 %	6.29%	☐ N/A, full yield curve used

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

23 Mortality table(s) (see instructions)
Prior regulation: ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute
Current regulation: ☐ 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**	83,893
b Excess assets, if applicable, but not greater than line 31a	**31b**	0

32 Amortization installments:

	Outstanding Balance	Installment
a Net shortfall amortization installment	853,053	130,362
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**	214,255

	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	247,820	247,820

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**	0
38 Present value of excess contributions for current year (see instructions)		
a Total (excess, if any, of line 37 over line 36)	**38a**	0
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

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

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

The average retirement age shown in line 22 has been calculated by assuming the following retirement rates and no decrements other than retirement for this calculation. All retirements are assumed to occur at beginning of year.

(a) Age	(b) Rate	(c) Weight	(d) Product (a) × (b) × (c)
55	6.00%	1.0000	3.30
56	5.00%	0.9400	2.63
57	6.00%	0.8930	3.05
58	6.00%	0.8394	2.92
59	6.00%	0.7891	2.79
60	7.00%	0.7417	3.12
61	9.00%	0.6898	3.79
62	12.00%	0.6277	4.67
63	16.00%	0.5524	5.57
64	24.00%	0.4640	7.13
65	31.00%	0.3526	7.11
66	29.00%	0.2433	4.66
67	27.00%	0.1728	3.13
68	26.00%	0.1261	2.23
69	33.00%	0.0933	2.13
70	100.00%	0.0625	4.38
		Weighted Average	62.61

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

Schedule SB, line 24—Change in Actuarial Assumptions

The funding valuation reflects the following assumption changes:

- A change in the unlimited expected rate of return on assets from 6.25% to 6.00%.

This change was made to better reflect the anticipated plan experience. This assumption change did not reduce the funding shortfall; as such, approval of the Commissioner is not required.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

Schedule SB, line 26—Schedule of Active Participant Data as of January 1, 2018

Number of Participants

Attained Age	Years of Credited Service									
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+
<25										
25-29										
30-34										
35-39										
40-44					1					
45-49										
50-54		2				1				
55-59		1			1			1		
60-64				1						
65-69										
70+										

N-8

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

Schedule SB, line 32—Schedule of Amortization Bases

Type of Base	Present Value of Installment	Date Established	Years Remaining	Amortization Installment
Shortfall	$ (13,550)	January 1, 2012	1	$ (13,550)
Shortfall	$ (94,351)	January 1, 2014	3	$ (32,667)
Shortfall	$ 6,584	January 1, 2015	4	$ 1,742
Shortfall	$ 57,422	January 1, 2016	5	$ 12,384
Shortfall	$ 731,949	January 1, 2017	6	$ 135,517
Shortfall	$ 164,999	January 1, 2018	7	$ 26,936

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

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

Interest Rates for Minimum Funding Purposes	Based on segment rates with a four-month lookback (as of September 2017), each adjusted as needed to fall within the 25-year average interest rate stabilization corridor
1st Segment Rate	3.92%
2nd Segment Rate	5.52%
3rd Segment Rate	6.29%
Interest Rates for Maximum Tax Purposes	Based on segment rates with a four-month lookback (as of September 2017), without regard to interest rate stabilization
1st Segment Rate	1.75%
2nd Segment Rate	3.76%
3rd Segment Rate	4.66%
Retirement Age	
Active Participants	See Table 1.
Terminated Vested Participants	See Table 2.
Mortality Rates	
Healthy and Disabled	2018 static mortality table (with new basis adoption deferred to 2019) for annuitants and non-annuitants per §1.430(h)(3)-1(e).
Withdrawal Rates	See Table 3.
Disability Rates	See Table 4.
Form of Benefit Payment	See Table 5.
Decrement Timing	Beginning of year decrements.
Surviving Spouse Benefit	It is assumed that 80% of males and 80% of females have an eligible spouse, and that males are three years older than their spouses.
Benefit Limits	Projected benefits are limited by the current IRC section 415 maximum benefit of $220,000.

Valuation of Plan Assets	Smoothed fair market value of assets over the current and prior two years, adjusted for contributions, benefit payments, administrative expenses, and expected earnings. The average value of assets calculated in this manner is further limited to not less than 90% nor more than 110% of fair market value. A characteristic of this method is that the expected distribution of the value of plan assets is skewed toward understatement relative to the corresponding market values for expected long-term rates of return in excess of the third segment rate under IRC section 430(h)(2)(C)(iii).
Expected Return on Assets	
2016 Plan Year	6.25% The applicable third segment rate limitation is 6.65%.
2017 Plan Year	6.25% The applicable third segment rate limitation is 6.48%.
2018 Plan Year	6.00% The applicable third segment rate limitation is 6.29%.
Trust Expenses Included in Target Normal Cost	$67,134, actual expenses from prior year with a 5.00% load
Actuarial Method	Standard unit credit cost method
Valuation Date	January 1, 2018

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

Table 1

Retirement Rates—Active Participants

Age	Rate
55	6.00%
56	5.00%
57	6.00%
58	6.00%
59	6.00%
60	7.00%
61	9.00%
62	12.00%
63	16.00%
64	24.00%
65	31.00%
66	29.00%
67	27.00%
68	26.00%
69	33.00%
70+	100.00%

Table 2

Retirement Rates—Terminated Vested Participants

Age	Rate
55	15.00%
56	5.00%
57	5.00%
58	5.00%
59	6.00%
60	6.00%
61	10.00%
62	20.00%
63	10.00%
64	15.00%
65+	100.00%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

Table 3—Page 1 of 2

Withdrawal Rates

	Years of Service			
Age	**0-1**	**2-4**	**5-9**	**10+**
20	18.00%	14.00%	0.00%	0.00%
21	22.00%	18.00%	0.00%	0.00%
22	21.00%	21.00%	15.00%	0.00%
23	23.00%	18.00%	15.00%	0.00%
24	27.00%	18.00%	14.00%	0.00%
25	27.00%	16.00%	13.00%	0.00%
26	24.00%	16.00%	13.00%	0.00%
27	19.00%	14.00%	13.00%	0.00%
28	14.00%	15.00%	12.00%	11.00%
29	13.00%	14.00%	12.00%	11.00%
30	16.00%	13.00%	9.00%	12.00%
31	13.00%	14.00%	10.00%	13.00%
32	12.00%	14.00%	10.00%	8.00%
33	12.00%	12.00%	10.00%	8.00%
34	15.00%	12.00%	9.00%	7.00%
35	12.00%	13.00%	10.00%	6.00%
36	16.00%	12.00%	9.00%	7.00%
37	16.00%	11.00%	9.00%	6.00%
38	16.00%	10.00%	7.00%	6.00%
39	10.00%	11.00%	7.00%	6.00%
40	9.00%	9.00%	8.00%	6.00%
41	8.00%	8.00%	8.00%	6.00%
42	10.00%	8.00%	8.00%	6.00%
43	10.00%	10.00%	8.00%	5.00%
44	10.00%	8.00%	8.00%	6.00%

Table 3—Page 2 of 2

Withdrawal Rates

	Years of Service			
Age	**0-1**	**2-4**	**5-9**	**10+**
45	12.00%	9.00%	7.00%	5.00%
46	10.00%	10.00%	6.00%	5.00%
47	12.00%	12.00%	5.00%	4.00%
48	14.00%	13.00%	4.00%	4.00%
49	15.00%	12.00%	6.00%	4.00%
50	12.00%	12.00%	6.00%	3.00%
51	12.00%	11.00%	6.00%	3.00%
52	11.00%	10.00%	7.00%	3.00%
53	10.00%	9.00%	8.00%	3.00%
54	11.00%	8.00%	7.00%	3.00%
55+	0.00%	0.00%	0.00%	0.00%

Table 4

Disability Rates

Age	Rate	Age	Rate
18	0.04%	45	0.16%
19	0.04%	46	0.19%
		47	0.22%
20	0.04%	48	0.26%
21	0.04%	49	0.29%
22	0.04%		
23	0.04%	50	0.33%
24	0.04%	51	0.37%
		52	0.41%
25	0.04%	53	0.45%
26	0.05%	54	0.50%
27	0.05%		
28	0.05%	55	0.55%
29	0.05%	56	0.61%
		57	0.72%
30	0.05%	58	0.83%
31	0.05%	59	0.91%
32	0.05%		
33	0.06%	60	1.04%
34	0.06%	61	1.19%
		62	1.37%
35	0.06%	63	1.57%
36	0.07%	64	2.04%
37	0.07%		
38	0.07%	65+	0.00%
39	0.08%		
40	0.08%		
41	0.09%		
42	0.09%		
43	0.10%		
44	0.13%		

Table 5

Form of Benefit Payment

Payment Form	Probability
5 Year Certain and Life	50.00%
100% Joint and Survivor Annuity	20.00%
75% Joint and Survivor Annuity	5.00%
66% Joint and Survivor Annuity	10.00%
50% Joint and Survivor Annuity	15.00%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

Schedule SB, Part V—Summary of Plan Provisions

General Information	
Original Effective Date	January 1, 1963
Effective Date of Last Amendment	December 1, 2006
Plan Year	January 1 to December 31
Employer Fiscal Year	January 1 to December 31
Employer ID Number	47-3936076
Plan Administrator's ID Number	47-3936076
Plan Number	051
Plan Administrator	Administrative Committee
Eligibility	Date of hire.
Service	
Credited Service	From date of hire.
Vesting Service	1,000 hours of service.
Normal Retirement	
Eligibility	Age 65.
Benefit	Benefit level per month multiplied by credited service:

Effective Date	Benefit Level
January 1, 2004	$43.00
January 1, 2008	$44.50
January 1, 2009	$45.50

Average Compensation	N/A
Early Retirement	
Eligibility	Age 55.
Benefit	Accrued benefit reduced 1/6% per month preceding age 62.

Disability Retirement	
Eligibility	Age 45 and 10 years of service or age 40 and five years of service.
Benefit	Accrued benefit.
Postponed Retirement	
Eligibility	Actual retirement after age 65.
Benefit	A monthly benefit equal to the accrued benefit calculated as of the actual retirement date.
Preretirement Death	
Eligibility	Five years of service or age 55.
Benefit	Accrued benefit at age 55.
Severance Benefit	
Eligibility	
Fewer Than Five Years of Service	0%
Five or More Years of Service	100%
Benefit	Accrued benefit at age 65.
Normal Form of Payment	
Married	Reduced 50% joint and survivor with five year certain.
Single	Life annuity with five year certain.
Optional Methods of Settlement	Reduced benefit to be paid during participant's lifetime with the provision that after his death, a benefit equal to either 100%, 75%, 66%, or 50% is paid to his beneficiary. Increased retirement benefit paid prior to Social Security benefit eligibility and reduced benefit paid thereafter in order to provide a uniform income. A reduced benefit to be paid for 120 months certain and thereafter for life.

For the purpose of calculating a joint and survivor optional form of benefit the following factors (as adjusted) shall be applied:

J&S Option	(1) Participant and Beneficiary Age 65 Nearest Birthday	(2) Adjustment for Retirement Age[1]	(3) Adjustment for Age Difference Between Participant and Beneficiary[2]	
			Years 1–10	Years 11 & Over
50%	0.88	0.004	0.005	0.003
66.67%	0.85	0.005	0.006	0.003
75%	0.82	0.006	0.007	0.005
100%	0.78	0.007	0.008	0.005

In no event shall the factor in column (1) exceed 0.99 on account of an increase thereof provided under column (2) or column (3), or both.

For the purpose of calculating any other optional form of benefit available, mortality with reference to the UP-84 mortality table and 6.50% interest.

Plan Changes Since the Prior Year

The funding valuation does not reflect any plan changes.

Other Information to Fully and Fairly Disclose the Actuarial Position of the Plan

Due to software limitations with the electronic filing process, information filed electronically cannot be controlled by the Enrolled Actuary. The values on the signed Schedule SB will govern to the extent there are any differences in the entries filed electronically and the actual data contained on the signed Schedule SB.

[1] Increase/decrease factor in column (1) by appropriate factor in column (2) for each year, based on nearest birthday, participant retires before/after age 65, respectively.

[2] Decrease/increase factor in column (1) by appropriate factor in column (3) for each year, based on nearest birthday, beneficiary is younger/older than participant, respectively.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

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

The average retirement age shown in line 22 has been calculated by assuming the following retirement rates and no decrements other than retirement for this calculation. All retirements are assumed to occur at beginning of year.

(a) Age	(b) Rate	(c) Weight	(d) Product (a) × (b) × (c)
55	6.00%	1.0000	3.30
56	5.00%	0.9400	2.63
57	6.00%	0.8930	3.05
58	6.00%	0.8394	2.92
59	6.00%	0.7891	2.79
60	7.00%	0.7417	3.12
61	9.00%	0.6898	3.79
62	12.00%	0.6277	4.67
63	16.00%	0.5524	5.57
64	24.00%	0.4640	7.13
65	31.00%	0.3526	7.11
66	29.00%	0.2433	4.66
67	27.00%	0.1728	3.13
68	26.00%	0.1261	2.23
69	33.00%	0.0933	2.13
70	100.00%	0.0625	4.38
		Weighted Average	62.61

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Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

Schedule SB, line 32—Schedule of Amortization Bases

Type of Base	Present Value of Installment	Date Established	Years Remaining	Amortization Installment
Shortfall	$ (13,550)	January 1, 2012	1	$ (13,550)
Shortfall	$ (94,351)	January 1, 2014	3	$ (32,667)
Shortfall	$ 6,584	January 1, 2015	4	$ 1,742
Shortfall	$ 57,422	January 1, 2016	5	$ 12,384
Shortfall	$ 731,949	January 1, 2017	6	$ 135,517
Shortfall	$ 164,999	January 1, 2018	7	$ 26,936

Schedule SB Attachment (Form 5500)—2018 Plan Year
Retirement Plan of GCP Applied Technologies Inc. Chemical Group (Cambridge Plant)
EIN: 47-3936076 PN: 051

Schedule SB, line 24—Change in Actuarial Assumptions

The funding valuation reflects the following assumption changes:

- A change in the unlimited expected rate of return on assets from 6.25% to 6.00%.

This change was made to better reflect the anticipated plan experience. This assumption change did not reduce the funding shortfall; as such, approval of the Commissioner is not required.