Form 5500

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Annual Return/Report of Employee Benefit Plan

This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

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

OMB Nos. 1210-0110
1210-0089

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:
- [ ] a multiemployer plan
- [ ] a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)
- [X] a single-employer plan
- [ ] a DFE (specify) ____

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

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

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

Part II Basic Plan Information—enter all requested information

1a Name of plan
W.R. GRACE & CO. RETIREMENT PLAN FOR CURTIS BAY PLANT

1b Three-digit plan number (PN) ▶ 036

1c Effective date of plan 01/01/1972

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)
W.R. GRACE & CO. -CT

7500 GRACE DRIVE, BUILDING 100
COLUMBIA, MD 21044

2b Employer Identification Number (EIN)
13-5114230

2c Plan Sponsor's telephone number
410-531-4000

2d Business code (see instructions)
325100

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

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

SIGN HERE	Filed with authorized/valid electronic signature.	10/11/2019	KERRIE WOLFE
	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
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

3a Plan administrator's name and address ☐ Same as Plan Sponsor

ADMINISTRATIVE COMMITTEE

7500 GRACE DRIVE
BUILDING 100
COLUMBIA, MD 21044

3b Administrator's EIN: 13-2880089

3c Administrator's telephone number: 410-531-4000

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

5 Total number of participants at the beginning of the plan year	**5**	688
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines **6a(1), 6a(2), 6b, 6c,** and **6d**).		
a(1) Total number of active participants at the beginning of the plan year	**6a(1)**	344
a(2) Total number of active participants at the end of the plan year	**6a(2)**	337
b Retired or separated participants receiving benefits	**6b**	233
c Other retired or separated participants entitled to future benefits	**6c**	44
d Subtotal. Add lines **6a(2)**, **6b**, and **6c**	**6d**	614
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	**6e**	65
f Total. Add lines **6d** and **6e**.	**6f**	679
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**6g**	
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	**6h**	6
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	**7**	

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

1B

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

9a Plan funding arrangement (check all that apply)		**9b** Plan benefit arrangement (check all that apply)	
(1) Insurance	☐	**(1)** Insurance	☐
(2) Code section 412(e)(3) insurance contracts	☐	**(2)** Code section 412(e)(3) insurance contracts	☐
(3) Trust	X	**(3)** Trust	X
(4) General assets of the sponsor	☐	**(4)** General assets of the sponsor	☐

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

a Pension Schedules

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

b General Schedules

(1)	X		**H** (Financial Information)
(2)	☐		**I** (Financial Information – Small Plan)
(3)	☐	0	**A** (Insurance Information)
(4)	X		**C** (Service Provider Information)
(5)	X		**D** (DFE/Participating Plan Information)
(6)	☐		**G** (Financial Transaction Schedules)

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

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

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

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

11c Enter the Receipt Confirmation Code for the 2018 Form M-1 annual report. If the plan was not required to file the 2018 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code_____

SCHEDULE SB (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Single-Employer Defined Benefit Plan Actuarial Information

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

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

OMB No. 1210-0110

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
W.R. GRACE & CO. RETIREMENT PLAN FOR CURTIS BAY PLANT

B Three-digit plan number (PN) ▶ 036

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
W.R. GRACE & CO. -CT

D Employer Identification Number (EIN)
13-5114230

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**	88339385
b Actuarial value	**2b**	84933635

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	293	37075147	37075147
b For terminated vested participants	51	1558240	1558240
c For active participants	344	30274697	31142825
d Total	688	68908084	69776212

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**	5.69 %
6 Target normal cost	**6**	1268934

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	17-07200
Type or print name of actuary	Most recent enrollment number
AON CONSULTING, INC.	410-547-2990
Firm name	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	1577497
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	1319195
9	Amount remaining (line 7 minus line 8)	0	258302
10	Interest on line 9 using prior year's actual return of 11.20 %	0	28930
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		16590129
	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 5.89%		899458
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		147750
	c Total available at beginning of current plan year to add to prefunding balance		17637337
	d Portion of (c) to be added to prefunding balance		17637337
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	17924569

Part III Funding Percentages

14	Funding target attainment percentage	14	96.03%
15	Adjusted funding target attainment percentage	15	121.72%
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	98.07%
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
			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**	1268934
b Excess assets, if applicable, but not greater than line 31a	**31b**	0

32 Amortization installments:

	Outstanding Balance	Installment
a Net shortfall amortization installment	2767146	478019
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**: 1746953

	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	1746953	1746953

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

A Name of plan
W.R. GRACE & CO. RETIREMENT PLAN FOR CURTIS BAY PLANT

B Three-digit plan number (PN) ▶ 036

C Plan sponsor's name as shown on line 2a of Form 5500
W.R. GRACE & CO. -CT

D Employer Identification Number (EIN)
13-5114230

Part I Service Provider Information (see instructions)

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

1 Information on Persons Receiving Only Eligible Indirect Compensation

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

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

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

ALIGHT FINANCIAL SOLUTIONS, LLC

82-1061233

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

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

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

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

ALIGHT SOLUTIONS LLC

82-1061233

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
15 50	RECORD KEEPER	106608	Yes [ ] No [X]	Yes [ ] No [ ]		Yes [ ] No [ ]

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

AON HEWITT INVESTMENT CONSULTING

36-3109431

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
28 50 51 52	NONE	73888	Yes [X] No [ ]	Yes [X] No [ ]	0	Yes [ ] No [ ]

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

AON CONSULTING

22-2232264

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
11 17 50	NONE	73459	Yes [ ] No [X]	Yes [ ] No [ ]		Yes [ ] No [ ]

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

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

NORTHERN TRUST CORPORATION

36-2723087

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
21 50	NONE	22608	Yes [X] No [ ]	Yes [X] No [ ]	0	Yes [ ] No [ ]

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

STOUT, CAUSEY & HORNING, P.A.

52-1743645

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
10 50	NONE	7836	Yes [ ] No [X]	Yes [ ] No [ ]		Yes [ ] No [ ]

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

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

Part I Service Provider Information (continued)

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

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

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

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

Part II Service Providers Who Fail or Refuse to Provide Information

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

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

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

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

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

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

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

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

(complete as many entries as needed)

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

Explanation:

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

Explanation:

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

Explanation:

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

Explanation:

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

Explanation:

SCHEDULE D (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

DFE/Participating Plan Information

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

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

OMB No. 1210-0110

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

A Name of plan
W.R. GRACE & CO. RETIREMENT PLAN FOR CURTIS BAY PLANT

B Three-digit plan number (PN) ▶ 036

C Plan or DFE sponsor's name as shown on line 2a of Form 5500
W.R. GRACE & CO. -CT

D Employer Identification Number (EIN)
13-5114230

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

a Name of MTIA, CCT, PSA, or 103-12 IE: W.R.GRACE & CO. MASTER RET. TRUST

b Name of sponsor of entity listed in (a): W.R. GRACE & CO.

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
36-6807393-101	M	78514870

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

a Plan name	
b Name of plan sponsor	**c** EIN-PN

SCHEDULE H (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Financial Information

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

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

OMB No. 1210-0110

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

A Name of plan
W.R. GRACE & CO. RETIREMENT PLAN FOR CURTIS BAY PLANT

B Three-digit plan number (PN) ▶ 036

C Plan sponsor's name as shown on line 2a of Form 5500
W.R. GRACE & CO. -CT

D Employer Identification Number (EIN)
13-5114230

Part I Asset and Liability Statement

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

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)	16400000	0
(2) Participant contributions	1b(2)		
(3) Other	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
(2) U.S. Government securities	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)		
(9) Value of interest in common/collective trusts	1c(9)		
(10) Value of interest in pooled separate accounts	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)	72148169	78514870
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds)	1c(13)		
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)		
(15) Other	1c(15)		

			(a) Beginning of Year	(b) End of Year
1d	Employer-related investments:			
	(1) Employer securities	1d(1)		
	(2) Employer real property	1d(2)		
e	Buildings and other property used in plan operation	1e		
f	Total assets (add all amounts in lines 1a through 1e)	1f	88548169	78514870
	Liabilities			
g	Benefit claims payable	1g		
h	Operating payables	1h		
i	Acquisition indebtedness	1i		
j	Other liabilities	1j		
k	Total liabilities (add all amounts in lines 1g through1j)	1k	0	0
	Net Assets			
l	Net assets (subtract line 1k from line 1f)	1l	88548169	78514870

Part II Income and Expense Statement

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

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

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		-2554654
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		
c Other income	2c		
d Total income. Add all **income** amounts in column (b) and enter total	2d		-2554654
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	7098614	
(2) To insurance carriers for the provision of benefits	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines **2e(1)** through **(3)**	2e(4)		7098614
f Corrective distributions (see instructions)	2f		
g Certain deemed distributions of participant loans (see instructions)	2g		
h Interest expense	2h		
i Administrative expenses: (1) Professional fees	2i(1)		
(2) Contract administrator fees	2i(2)		
(3) Investment advisory and management fees	2i(3)		
(4) Other	2i(4)	380031	
(5) Total administrative expenses. Add lines **2i(1)** through **(4)**	2i(5)		380031
j Total expenses. Add all **expense** amounts in column (b) and enter total	2j		7478645
Net Income and Reconciliation			
k Net income (loss). Subtract line **2j** from line **2d**	2k		-10033299
l Transfers of assets:			
(1) To this plan	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

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

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

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

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

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

(1) Name: SC&H ATTEST SERVICES, P.C. **(2)** EIN: 52-1743645

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

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

Part IV Compliance Questions

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

During the plan year:

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

			Yes	No	Amount
c	Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)	4c		X	
d	Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)	4d		X	
e	Was this plan covered by a fidelity bond?	4e	X		15000000
f	Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	4f		X	
g	Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?	4g		X	
h	Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?	4h		X	
i	Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	4i	X		
j	Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.)	4j		X	
k	Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	4k		X	
l	Has the plan failed to provide any benefit when due under the plan?	4l		X	
m	If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	4m			
n	If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.	4n			

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

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	**5b(2)** EIN(s)	**5b(3)** PN(s)

5c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (See ERISA section 4021.)? ☒ Yes ☐ No ☐ Not determined
If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 4159298. (See instructions.)

SCHEDULE R (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Retirement Plan Information

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

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

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

A Name of plan
W.R. GRACE & CO. RETIREMENT PLAN FOR CURTIS BAY PLANT

B Three-digit plan number (PN) ▶ 036

C Plan sponsor's name as shown on line 2a of Form 5500
W.R. GRACE & CO. -CT

D Employer Identification Number (EIN)
13-5114230

Part I Distributions

All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions **1** 0

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

EIN(s): 36-1561860

Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.

3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year **3** 13

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

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

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

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

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

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

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

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

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

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

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

Part III Amendments

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

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

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

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

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

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

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

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

a Name of contributing employer

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

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

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

---

a Name of contributing employer

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

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

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

---

a Name of contributing employer

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

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

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

---

a Name of contributing employer

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

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

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

---

a Name of contributing employer

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

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

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

---

a Name of contributing employer

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

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

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

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

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

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

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

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

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

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

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

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

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

a Enter the percentage of plan assets held as:
Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____%

b Provide the average duration of the combined investment-grade and high-yield debt:
☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more

c What duration measure was used to calculate line 19(b)?
☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify):

W. R. Grace & Co.-Conn.
Retirement Plan for Hourly Employees of Curtis Bay Plant
December 31, 2018 and 2017

SC&H
ATTEST SERVICES

INDEPENDENT AUDITORS' REPORT

To the Investment and Benefits Committee and Participants
of the W. R. Grace & Co.-Conn. Retirement Plan for Hourly Employees of Curtis Bay Plant:

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of the W. R. Grace & Co.-Conn. Retirement Plan for Hourly Employees of Curtis Bay Plant (the Plan), which comprise the statements of net assets available for benefits and of accumulated plan benefits as of December 31, 2018 and 2017, the related statements of changes in net assets available for benefits and of changes in accumulated plan benefits for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Plan management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on conducting the audits in accordance with auditing standards generally accepted in the United States of America. Because of the matter described in the Basis for Disclaimer of Opinion paragraph, however, we were not able to obtain sufficient, appropriate audit evidence to provide a basis for an audit opinion.

Basis for Disclaimer of Opinion

As permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974, the Plan administrator instructed us not to perform, and we did not perform, any auditing procedures with respect to the information summarized in Notes 5 and 9, which was certified by The Northern Trust Company, the Trustee of the Plan, except for comparing the information with the related information included in the financial statements and supplemental schedule. We have been informed by the Plan administrator that the Trustee holds the Plan's investment assets and executes investment transactions. The Plan administrator has obtained a certification from the Trustee as of December 31, 2018 and 2017 and for the years then ended, that the information provided to the Plan administrator by the Trustee is complete and accurate.

Disclaimer of Opinion

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

Other Matter

The supplemental schedule of assets (held at end of year) as of December 31, 2018 is required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 and is presented for the purpose of additional analysis and is not a required part of the financial statements. Because of the significance of the matter described in the Basis for Disclaimer of Opinion paragraph, we do not express an opinion on the supplemental schedule referred to above.

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

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

SC&H Attest Services, P.C.

October 4, 2019

W. R. Grace & Co.-Conn. Retirement Plan for Hourly Employees of Curtis Bay Plant

Statements of Net Assets Available for Benefits

	December 31, 2018	December 31, 2017
Investments, at fair value		
Plan interest in the Trust Fund of the W. R. Grace & Co. Retirement Plans	$ 78,514,870	$ 72,148,169
Employer contributions receivable	—	16,400,000
Net assets available for benefits	$ 78,514,870	$ 88,548,169

Statements of Accumulated Plan Benefits

	December 31, 2018	December 31, 2017
Actuarial present value of accumulated plan benefits		
Vested benefits		
Participants currently receiving payments	$ 34,462,001	$ 39,230,728
Other participants	33,992,092	36,651,444
	68,454,093	75,882,172
Nonvested benefits	958,395	1,030,242
Total actuarial present value of accumulated plan benefits	$ 69,412,488	$ 76,912,414

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

W. R. Grace & Co.-Conn. Retirement Plan for Hourly Employees of Curtis Bay Plant

Statements of Changes in Net Assets Available for Benefits

	For the Years Ended December 31,	
	2018	2017
Additions to (deductions from) net assets available for benefits:		
Plan interest in the Trust Fund of the W. R. Grace & Co. Retirement Plans net investment income (loss)	$ (2,934,685)	$ 7,158,678
Employer contributions	—	18,176,000
Total additions (deductions)	(2,934,685)	25,334,678
Deductions from net assets available for benefits:		
Benefits paid	7,098,614	4,946,889
Total deductions	7,098,614	4,946,889
Net increase (decrease)	(10,033,299)	20,387,789
Net assets available for benefits		
Beginning of year	88,548,169	68,160,380
End of year	$ 78,514,870	$ 88,548,169

Statements of Changes in Accumulated Plan Benefits

	For the Years Ended December 31,	
	2018	2017
Actuarial present value of accumulated plan benefits at beginning of year	$ 76,912,414	$ 74,719,109
Increase (decrease) during year:		
Benefits accumulated	1,293,784	1,232,503
Interest	3,853,947	3,975,332
Benefits paid	(7,098,614)	(4,946,889)
Changes in actuarial assumptions	(6,169,233)	2,351,350
Other actuarial loss (gain)	620,190	(418,991)
Net increase (decrease)	(7,499,926)	2,193,305
Actuarial present value of accumulated plan benefits at end of year	$ 69,412,488	$ 76,912,414

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

1. Description of the Plan

The following description of the W. R. Grace & Co.-Conn. Retirement Plan for Hourly Employees of Curtis Bay Plant ("Plan") provides only general information. Participants should refer to the Plan document for a complete description of its provisions.

General

The Plan is a noncontributory defined benefit retirement plan which was established January 1, 1963. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA"). Certain administrative decisions regarding the Plan are made by the Investment and Benefits Committee appointed by the W. R. Grace & Co. ("Grace" or the "Company") Board of Directors. For investment purposes, the assets of the Plan are commingled with the assets of certain other retirement plans of Grace in the Trust Fund of the W. R. Grace & Co. Retirement Plans ("Fund"), a master trust, which is maintained by The Northern Trust Company ("Trustee").

Eligibility

Hourly employees of the Curtis Bay Plant are eligible to participate in the Plan upon date of hire or after one year of service, as defined by the Plan, depending on their date of hire.

Pension Benefits

Participants are eligible to receive retirement benefits upon actual retirement at any age from 65 (based on the retirement benefit level at actual termination or the commencement of retirement benefits, if earlier) and are eligible for early retirement benefits at age 55. Participants' monthly retirement benefits range from $22.75 to $50.00 for each year of credited service, depending on the date of termination of service, as defined by the Plan. Additionally, participants receive 1/36th of a participant's voluntary contributions, if any, made to the Plan prior to October 1, 1976.

Benefits are paid in the form of an annuity, or effective January 1, 2016, a lump sum payment, at the election of the participant; however, for terminated participants with an accrued benefit valued at $1,000 or less, the participant will receive a direct lump sum distribution from the Plan. If the participant's accrued benefit exceeds $1,000 but not $5,000, the benefit will remain in the Plan until the participant affirmatively elects to have the Plan distribute the funds or have the funds paid in a direct rollover to an individual retirement plan. Former Grace employees with an account balance within the W. R. Grace & Co. Savings and Investment Plan (the "S&I Plan") may directly roll over into the S&I Plan a lump sum distribution received from the Plan, subject to limitations on lump sum distributions described below.

Under the Pension Protection Act of 2006, the Plan is permitted to distribute lump sums to retiring participants when the Plan is at least 80% funded. The funded status is calculated as determined under ERISA, which is on a different basis than under U.S. generally accepted accounting principles.

Death and Disability Benefits

Upon the death of an active vested participant, or a vested former participant who terminated on or after January 1, 1976, a death benefit may be payable to the participant's spouse or designated beneficiary.

Disability benefits are also available for eligible participants prior to retirement age.

Vesting

Employees are fully vested in benefits accrued after 5 years of vesting service, as defined by the Plan, or at age 55 regardless of years of service.

2. Summary of Accounting Policies

The following are the significant accounting policies followed by the Plan:

Basis of Accounting

The financial records of the Plan are maintained on the accrual basis of accounting.

Investment Valuation and Income Recognition

All investments in the Fund are stated at fair value, with the exception of annuity and immediate participation contracts, which are stated at contract value, which approximates fair value. Contract value represents contributions made under the contract plus interest at the contract rate ranging from 3.69% to 4.32% during 2018 and from 3.75% to 3.85% during 2017, and dividends less funds used for benefit payments. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Refer to Note 6 for a description of significant accounting policies employed in determining the fair value of investments held by the Fund. Purchases and sales of securities are recorded on a trade-date basis. Securities denominated in foreign currencies are translated at the exchange rate prevailing at the statement of net assets available for benefits date. Investment income (loss) from securities denominated in foreign currencies is translated at the average exchange rate prevailing during the year. The average cost method is used to determine the cost of securities sold. Dividends are recorded on the ex-dividend date. Funds under the investment contract that have been allocated and applied to purchase annuities (through insurance companies with those companies obligated to pay the related pension benefit) are excluded from the Plan's assets.

Risks and Uncertainties

Contributions to the Plan, if any, and the actuarial present value of accumulated plan benefits are reported based on certain assumptions pertaining to interest rates, inflation rates, employee compensation and demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

Investment securities are exposed to various risks, such as interest rate, credit and market risks. Investment securities change in value, and it is possible that such changes could be material.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and changes therein, disclosure of contingent assets and liabilities, and the actuarial present value of accumulated plan benefits at the date of the financial statements. Such estimates include those regarding fair value of investments and accumulated benefit obligations. Actual results could differ from those estimates.

Actuarial Present Value of Accumulated Plan Benefits

Accumulated plan benefits represent those future periodic payments, including lump sum distributions, based on the Plan provisions earned by all active, retired and vested terminated participants up to the date of the valuation. Accumulated plan benefits include benefits expected to be paid to (a) retired or vested terminated employees or their beneficiaries, (b) beneficiaries of employees who have died, and (c) present employees or their beneficiaries. Benefits payable under all circumstances – retirement, death and termination of employment – are included to the extent they are deemed attributable to employee service rendered to the valuation date.

The actuarial present value of accumulated plan benefits is determined by the Plan's independent actuary and is that amount which results from applying actuarial assumptions to adjust the accumulated plan benefits reflecting the time value of money and the probability of payment between the valuation date and the expected date of payment. The significant actuarial assumptions used in the valuation were (a) life expectancy of active participants (the RP-2014 Mortality Table), (b) a graduated retirement age scale from age 55 to 70 and (c) an interest rate of 5.75% and 5.25% as of December 31, 2018 and 2017, respectively. Changes in the mortality assumption, lump sum interest rates, and the lump sum mortality table assumptions resulted in a decrease in the actuarial present value of accumulated plan benefits of $6,169,233 for the year ended December 31, 2018. Changes in the lump sum interest rates and the lump sum mortality table assumptions resulted in an increase in the actuarial present value of accumulated plan benefits of $2,351,350 for the year ended December 31, 2017. The foregoing actuarial assumptions are based on the presumption that the Plan will continue.

In the event of Plan termination, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated plan benefits. Benefits to be provided via annuity contracts excluded from Plan assets are excluded from accumulated plan benefits.

Payment of Benefits

Benefit payments to participants are recorded when paid.

Administrative Expenses

Expenses incurred in the administration of the Plan are required to be paid through the Fund, unless paid directly by the Company at its discretion. Administrative expenses incurred by the Fund are allocated to the Plan as described in Note 5. The Fund paid administrative expenses totaling $4,300,829 and $3,728,935 for the years ended December 31, 2018 and 2017, respectively.

Recently Issued Accounting Pronouncements and Accounting Changes

In August 2018, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2018-13, *Changes to the Disclosure Requirements for Fair Value Measurement*. ASU 2018-13 eliminates, amends and adds disclosure requirements relating to fair value reporting. ASU 2018-13 is effective for fiscal years beginning after December 15, 2019 for all entities, with early adoption permitted only for eliminated and modified disclosure requirements. All changes should be prospectively applied to all periods presented. Management has not elected to early adopt ASU 2018-13 during the year ended December 31, 2018 and is currently evaluating its future effect on the financial statements.

Subsequent Events

The Plan evaluated for disclosure any subsequent events through October 4, 2019, the date the financial statements were available to be issued, and determined there were no material subsequent events that warrant disclosure.

3. Funding Policies

Employee contributions are not allowed or required by the Plan. Contributions are made by the Company based upon annual actuarial determinations of cost using the "Projected Unit Credit Method." The contributions of the Company are to be made at such intervals as may be determined by management and the Plan's actuaries in such amounts as are necessary to maintain the Plan on a sound actuarial basis and to meet minimum funding standards of ERISA. No Company contributions were required for 2018 and 2017, but the Company voluntarily contributed $1,776,000 to the Plan in 2017. The contribution receivable amount of $16,400,000 as of December 31, 2017 was remitted to the Plan on April 6, 2018.

Under the provisions of the Pension Protection Act, the minimum funding requirements have been increased. Therefore, Plan sponsors may be required to make larger contributions in the future if Plan obligations are less than 100% funded.

4. Plan Termination

Although it has not expressed any intention to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions set forth in ERISA.

In the event of Plan termination, the net assets of the Plan will be allocated, as prescribed by ERISA and its related regulations, to provide the following benefits in the order indicated:

(a) Benefits attributable to employee contributions, if any, with interest, taking into account those paid out before termination.

(b) Other vested benefits up to insurance limitations guaranteed by the Pension Benefit Guaranty Corporation ("PBGC").

(c) All other (i.e., uninsured) vested benefits.

(d) All nonvested benefits.

Benefits to be provided via investment contracts under which a third party is obligated to pay would be excluded for allocation purposes.

Any remaining Plan assets would be returned to the Company. The PBGC insures pension benefits to Plan participants, up to certain limits, should unfunded vested benefits exist upon Plan termination. Whether all participants receive their benefits should the Plan terminate at some future time will depend on the sufficiency, at that time, of the Plan's net assets to provide for accumulated benefit obligations and may also depend on the financial condition of the Plan sponsor and the level of benefits guaranteed by the PBGC.

Generally, the PBGC guarantees most vested normal age retirement benefits, early retirement benefits and certain disability and survivor pensions. However, the PBGC does not guarantee all types of benefits under the Plan, and the amount of benefit protection is subject to certain limitations. Vested benefits under the Plan are guaranteed at the level in effect on the date of the Plan's termination. Whether a particular participant's accumulated plan benefit will be paid depends on both the priority of those benefits and the level of benefits guaranteed by the PBGC at the time. Some benefits may be fully or partially provided for by the then existing assets and the PBGC guaranty while other benefits may not be provided for at all. However, there is a statutory ceiling, which is adjusted periodically, on the amount of an individual's monthly benefit that the PBGC guarantees. For Plan terminations occurring during 2018 and 2017, that ceiling was $5,420 and $5,369, respectively. That ceiling applies to pensioners who elect to receive their benefits in the form of a single-life annuity and are at least 65 years old at the time of retirement or Plan termination (whichever comes later). For younger annuitants or for those who elect to receive their benefits in some form more valuable than a single-life annuity, the corresponding ceilings are actuarially adjusted downward. For all benefits greater than the PBGC ceiling, the benefits will not be guaranteed for the excess.

5. Investment in the Fund

The Plan has an undivided interest in the Fund, which comprises all of the Plan's investments. The assets of the Fund are comprised entirely of the Plan's assets and the assets of certain other retirement plans of the Company, each of which has an undivided interest in the Fund and is a related party to the Plan. At December 31, 2018 and 2017, the Plan's percentage interests in the Fund were approximately 9.02% and 6.50%, respectively.

The following table presents the net Fund assets available for benefits for the entire Fund:

	December 31, 2018	December 31, 2017
Assets		
Investments at fair value		
United States of America		
Equity group trust funds	$ 68,409,239	$ 118,803,203
Corporate bond group trust funds	721,339,251	796,987,563
Other fixed income group trust funds	14,593,851	25,395,455
Common/collective trust funds	13,700,132	92,860,080
Foreign		
Equity group trust funds	33,329,810	56,811,038
	851,372,283	1,090,857,339
Investments at contract value		
Annuity and immediate participation contracts	19,780,041	18,974,450
Total Fund investments	871,152,324	1,109,831,789
Receivables		
Accrued interest and dividends	100,792	74,970
Receivables for securities sold	2,513	1,707
Employer contributions receivable	—	50,000,000
Total receivables	103,305	50,076,677
Total Fund assets	871,255,629	1,159,908,466
Liabilities		
Payables for securities purchased	120,610	67,319
Accrued administrative expenses	773,724	518,062
Other liabilities	6,799	3,988
Total Fund liabilities	901,133	589,369
Net Fund assets available for benefits	$ 870,354,496	$ 1,159,319,097

The Fund's investment income and loss, including gains and losses on investments bought and sold, as well as held during the year, appreciation, depreciation, and interest and dividends, are shown below:

	For the Years Ended December 31,	
	2018	2017
United States of America		
Equity group trust funds	$ (3,863,964)	$ 19,266,222
Corporate bond group trust funds	(27,343,312)	79,357,508
Other fixed income group trust funds	(536,604)	1,980,653
Common/collective trust funds	(1,022,690)	1,916,697
Other investments	2,835	(1,718,101)
Foreign		
Equity group trust funds	(6,031,228)	15,065,321
Net appreciation (depreciation) in fair value of Fund investments	(38,794,963)	115,868,300
Interest and dividends	968,125	743,871
Total investment income (loss)	$ (37,826,838)	$ 116,612,171

Net appreciation (depreciation) in the fair value of Fund investments consists of the realized gains (losses) and the unrealized appreciation (depreciation) on those investments.

Fund Investments

Investments in publicly traded securities are valued at the closing sales price on the last day of the year, which is fair value. Investments, such as corporate bonds traded on the over-the-counter ("OTC") market and listed securities for which no sale was reported on that date are valued at the average of the last reported bid and ask prices, which approximates fair value. Group trust funds and common/collective trust funds are valued at fair value, as they are principally made up of marketable securities which are valued based on quoted market prices, with the remaining investments in the funds' fair value as determined by the investment advisor. The redemption frequency and redemption notice period for the Plan's Level 2 investments are daily.

The Plan is pursuing a well-defined risk management strategy designed to reduce investment risks as its funded status improves. The Plan has adopted a diversified set of portfolio management strategies to optimize the risk reward profile of the Plan.

As part of the Fund's investment strategy, certain investment managers may use derivative financial instruments including fixed income futures, options and swaps as substitutes for certain types of fixed income securities for the following primary reasons: (1) to hedge a part of the Fund's portfolio to contain or lessen exposure in certain areas of risk (e.g. currency risk), (2) to gain market exposure in the portfolio in a more efficient and less expensive manner, (3) to enhance investment returns by decreasing the cost of structuring the portfolio or by capturing pricing disparities between financial instruments, and (4) to adjust the maturity mix of the portfolio more efficiently. These investments are marked-to-market and generally have maturities of six months or less. During 2018 and 2017, derivative transactions were executed in accordance with policies referenced in each investment manager's relevant management agreement and with the Fund's Statement of Investment Policy. The investment managers use exchange-traded investments such as equity and interest rate futures and on occasion, OTC options and forward exchange contracts.

There may be risk exposures associated with some of the derivative transactions. Credit loss could occur due to nonperformance of counterparties associated with these transactions. The investment managers mitigate these exposures through credit approvals, credit limits and other counterparty monitoring procedures.

The following is a summary of the significant accounting policies associated with the Fund's use of derivatives:

Futures - Upon entering into a futures contract, the Fund is required to pledge to the broker an amount of cash and/or collateral equal to the minimum "initial margin" requirements of the exchange. Pursuant to the futures contract, the Fund agrees to receive from, or pay to, the broker an amount of cash equal to the daily fluctuation in the value of the futures contract. Such receipts or payments are known as "variation margin", which is settled daily. There were no fixed income futures outstanding at December 31, 2018 and 2017.

Options - Investment managers may buy or write put and call options through listed exchanges and in the OTC market. When an investment manager buys or writes an option, an amount equal to the premium paid or received by the Fund is recorded as an asset or liability and is periodically adjusted to the current fair value of the option purchased or written. The premiums paid or received from buying or writing options are recorded as realized gains or losses upon the expiration of the options. The difference between the premium and the amount paid or received on effecting a closing purchase or sale transaction is also treated as a realized gain or loss. If an option is exercised, the premium paid or received is recorded as a realized gain or loss, if sold, or an adjustment to cost, if acquired. The Fund, as a writer of an option, may have no control over whether the underlying securities may be sold (call) or purchased (put) and as a result, bears the market risk of an unfavorable change in the price of the security underlying the written option. There were no fixed income options outstanding at December 31, 2018 and 2017.

Swaps - Conventional interest rate swaps and/or forward interest rate swap spreads are employed for duration and yield curve management. Credit default swaps are used for credit risk management and may be purchased to protect long positions or to capitalize on deteriorating credits or sold to capitalize on pricing inefficiencies relative to cash pay bonds. Total return swaps are used to gain inexpensive exposure to the market and for efficient sector allocation. There were no swaps outstanding at December 31, 2018 and 2017.

Fixed income - The investment managers take positions in long and short futures contracts, options, swaps and forward contracts to carry out the Fund's fixed income investment strategy. Investment managers do not use derivative transactions to leverage the Fund's portfolio. Short-term and long-term futures contracts are exchange-traded instruments used to provide the portfolio with liquidity, to obtain a desired portfolio structure and to capture relative value differences.

The investment managers trade listed options on both short-term and long-term futures. The investment managers also trade OTC options on securities, swaps and futures. OTC options are used primarily with securities rather than with futures because there is no listed market for options on most securities. Whether exchange traded or OTC, options are used to obtain a desired portfolio structure.

The assets of the Plan held by the Fund are commingled. The Company, its independent actuary and the Trustee have maintained a record of the assets of each separate plan in the Fund by crediting contributions and charging disbursements to the balance of the Plan's assets at the start of each year. Returns on investments and administrative expenses are allocated to the participating plans on a monthly basis based on the proportion of each plan's beginning net asset balance to the total beginning net asset balance of the Fund for such period.

6. Fair Value Measurement

Certain of the Fund's assets and liabilities are reported at fair value. See Note 5 for methods of valuation for the various investments held by the Fund. Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 820 "Fair Value Measurement" defines fair value as the value that would be received at the measurement date in the principal or "most advantageous" market. The Fund uses principal market data, whenever available, to value assets and liabilities at fair value. ASC 820 prescribes three valuation techniques that shall be used to measure fair value as follows:

1. Market Approach—uses prices or other relevant information generated by market transactions involving identical or comparable assets or liabilities.
2. Income Approach—uses valuation techniques to convert future amounts to a single present amount (discounted).
3. Cost Approach—the amount that currently would be required to replace the service capacity of an asset (i.e., current replacement cost).

One or a combination of the approaches above can be used to calculate fair value, whichever results in the most representative fair value.

In addition to the three valuation techniques, ASC 820 prescribes a fair value hierarchy in order to increase consistency and comparability in fair value measurements and related disclosures. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels:

Level 1 Inputs — Quoted prices in active markets for identical assets or liabilities. A quoted price in an active market provides the most reliable evidence of fair value.

Level 2 Inputs — Inputs to the valuation methodology include:
- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly;
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 Inputs — Unobservable inputs for the asset or liability, which should reflect the reporting entity's own assumptions about the assumptions that market participants would use in pricing the asset or liability.

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

The methods of investment valuation discussed in Note 5 may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date. There have been no changes in the valuation methodologies as of December 31, 2018 and 2017.

The following tables present the fair value hierarchy for the Fund's assets measured at fair value as of December 31, 2018 and 2017:

	Fair Value Measurements at December 31, 2018 Using			
Assets Measured at Fair Value	Total	Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. equity group trust funds	$ 68,409,239	$ —	$ 68,409,239	$ —
Non-U.S. equity group trust funds	33,329,810	—	33,329,810	—
Corporate bond group trust funds – intermediate-term	313,967,322	—	313,967,322	—
Corporate bond group trust funds – long-term	407,371,929	—	407,371,929	—
Other fixed income group trust funds	14,593,851	—	14,593,851	—
Common/collective trust funds	13,700,132	—	13,700,132	—
Total assets, at fair value	$ 851,372,283	$ —	$ 851,372,283	$ —

	Fair Value Measurements at December 31, 2017 Using			
Assets Measured at Fair Value	Total	Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. equity group trust funds	$ 118,803,203	$ —	$ 118,803,203	$ —
Non-U.S. equity group trust funds	56,811,038	—	56,811,038	—
Corporate bond group trust funds – intermediate-term	353,620,907	—	353,620,907	—
Corporate bond group trust funds – long-term	443,366,656	—	443,366,656	—
Other fixed income group trust funds	25,395,455	—	25,395,455	—
Common/collective trust funds	92,860,080	—	92,860,080	—
Total assets, at fair value	$ 1,090,857,339	$ —	$ 1,090,857,339	$ —

7. Tax Status of Plan

The Plan received a favorable determination letter from the Internal Revenue Service dated February 10, 2017. The Plan administrator believes that the Plan is designed and is currently being operated in compliance with the applicable requirements of the Internal Revenue Code. Therefore, no provision for income taxes has been included in the Plan's financial statements.

ASC 740 "Income Taxes" prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return as well as guidance on de-recognition, classification, interest and penalties and financial statement reporting disclosures. For these benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon examination by taxing authorities. As the Plan is tax exempt and has no unrelated business income, the provisions of ASC 740 do not have a material impact on the Plan's financial statements.

The Plan recognizes interest and penalties accrued on any unrecognized tax exposures as a component of income tax expense. The Plan does not have any amounts accrued relating to interest and penalties as of December 31, 2018 and 2017.

The Plan is subject to routine audits by the IRS and Department of Labor; however, there are currently no audits for any tax periods in progress.

8. Related Party Transactions

Certain Fund investments are common/collective trust funds held by The Northern Trust Company as Trustee. The Company provides certain accounting and administrative services to the Plan for which no fees are charged. Fees are paid at the Fund level and are allocated to the Plan. These transactions qualify as party-in-interest transactions, which are exempt from the prohibited transaction rules.

9. Information Certified by the Trustee

As permitted by 29 CFR 2520.103-5 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA, the following information was derived from the information certified as to completeness and accuracy by The Northern Trust Company, the Trustee, and was not subject to audit.

	As of December 31,	
	2018	2017
Plan interest in the Trust Fund of the W. R. Grace & Co. Retirement Plans	$ 78,514,870	$ 72,148,169

	For the Years Ended December 31,	
	2018	2017
Plan interest in the Trust Fund of the W. R. Grace & Co. Retirement Plans net investment income (loss)	$ (2,934,685)	$ 7,158,678

W. R. Grace & Co.-Conn. Retirement Plan for Hourly Employees of Curtis Bay Plant

EIN 13-5114230 PN 036

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

December 31, 2018

(a)	(b) Identity of issue, borrower, lessor, or similar party	(c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value	(d) Cost	(e) Current Value
*	Trust Fund of the W. R. Grace & Co. Retirement Plans	Interest in Master Trust Investment Account	$ 59,389,323	$ 78,514,870

* Represents a party-in-interest as defined by ERISA

Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

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		2								
25-29	4	2	6							
30-34	2	6	7	1						
35-39	3	3	7	3	1					
40-44	3	3	4	7	6	11				
45-49	2	5	3	11	12	11				
50-54	3	12	8	5	5	7	2	2		
55-59	5	5	9	6	11	14	7	8	10	
60-64		4	8	9	10	7	1	9	13	16
65-69		1		2	5	2		3	1	6
70+				1				1		1

N-344

Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

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	5.50% The applicable third segment rate limitation is 6.65%.
2017 Plan Year	5.50% The applicable third segment rate limitation is 6.48%.
2018 Plan Year	5.25% The applicable third segment rate limitation is 6.29%.
Trust Expenses Included in Target Normal Cost	$232,309, 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	5.00%
56	5.00%
57	5.00%
58	5.00%
59	5.00%
60	7.00%
61	9.00%
62	12.00%
63	16.00%
64	23.00%
65	28.00%
66	28.00%
67	26.00%
68	25.00%
69	25.00%
70+	100.00%

Table 2

Retirement Rates—Terminated Vested Participants

Age	Rate
55	13.00%
56	5.00%
57	5.00%
58	5.00%
59	6.00%
60	7.00%
61	10.00%
62	13.00%
63	10.00%
64	18.00%
65+	100.00%

Table 3—Page 1 of 2

Withdrawal Rates

	Years of Service			
Age	**0-1**	**2-4**	**5-9**	**10+**
20	18.00%	14.00%	15.00%	11.00%
21	22.00%	18.00%	15.00%	11.00%
22	24.00%	16.00%	15.00%	11.00%
23	25.00%	14.00%	15.00%	11.00%
24	25.00%	14.00%	14.00%	11.00%
25	21.00%	13.00%	13.00%	11.00%
26	19.00%	17.00%	8.00%	11.00%
27	13.00%	15.00%	7.00%	11.00%
28	10.00%	17.00%	8.00%	11.00%
29	7.00%	15.00%	8.00%	14.00%
30	13.00%	14.00%	9.00%	14.00%
31	13.00%	13.00%	12.00%	16.00%
32	15.00%	15.00%	12.00%	14.00%
33	15.00%	13.00%	13.00%	11.00%
34	16.00%	14.00%	14.00%	6.00%
35	13.00%	13.00%	13.00%	6.00%
36	13.00%	13.00%	12.00%	6.00%
37	12.00%	11.00%	11.00%	5.00%
38	10.00%	12.00%	9.00%	5.00%
39	8.00%	12.00%	9.00%	5.00%
40	8.00%	12.00%	9.00%	5.00%
41	8.00%	10.00%	9.00%	5.00%
42	10.00%	11.00%	9.00%	5.00%
43	13.00%	11.00%	10.00%	5.00%
44	14.00%	10.00%	9.00%	5.00%

Table 3—Page 2 of 2

Withdrawal Rates

	Years of Service			
Age	**0-1**	**2-4**	**5-9**	**10+**
45	14.00%	9.00%	9.00%	4.00%
46	13.00%	9.00%	7.00%	4.00%
47	11.00%	10.00%	7.00%	3.00%
48	7.00%	11.00%	7.00%	3.00%
49	10.00%	12.00%	7.00%	4.00%
50	7.00%	13.00%	6.00%	3.00%
51	11.00%	13.00%	7.00%	3.00%
52	13.00%	12.00%	7.00%	4.00%
53	14.00%	11.00%	8.00%	3.00%
54	13.00%	10.00%	8.00%	4.00%
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—Active Participants	**Probability**
Lump Sum	40.00%
Single Life Annuity	30.00%
10 Year Certain and Life	3.00%
100% Joint and Survivor Annuity	12.00%
75% Joint and Survivor Annuity	3.00%
66% Joint and Survivor Annuity	3.00%
50% Joint and Survivor Annuity	9.00%

Payment Form—Terminated Vested Participants	**Probability**
Single Life Annuity	50.00%
10 Year Certain and Life	5.00%
100% Joint and Survivor Annuity	20.00%
75% Joint and Survivor Annuity	5.00%
66% Joint and Survivor Annuity	5.00%
50% Joint and Survivor Annuity	15.00%

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
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant

B Three-digit plan number (PN) ▶ 036

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
W.R. Grace & Co.-CT

D Employer Identification Number (EIN)
13-5114230

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	88,339,385
b Actuarial value	2b	84,933,635

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	293	37,075,147	37,075,147
b For terminated vested participants	51	1,558,240	1,558,240
c For active participants	344	30,274,697	31,142,825
d Total	688	68,908,084	69,776,212

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	5.69%
6 Target normal cost	6	1,268,934

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	1,577,497
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	1,319,195
9	Amount remaining (line 7 minus line 8)	0	258,302
10	Interest on line 9 using prior year's actual return of 11.20%	0	28,930
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year)		16,590,129
	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 5.89%		899,458
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		147,750
	c Total available at beginning of current plan year to add to prefunding balance		17,637,337
	d Portion of (c) to be added to prefunding balance		17,637,337
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	17,924,569

Part III Funding Percentages

14	Funding target attainment percentage	14	96.03%
15	Adjusted funding target attainment percentage	15	121.72%
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	98.07%
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
		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:

a Segment rates:

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

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	1,268,934
b Excess assets, if applicable, but not greater than line 31a	31b	0

32 Amortization installments:

	Outstanding Balance	Installment
a Net shortfall amortization installment	2,767,146	478,019
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	1,746,953

	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	1,746,953	1,746,953

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
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

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	5.00%	1.0000	2.75
56	5.00%	0.9500	2.66
57	5.00%	0.9025	2.57
58	5.00%	0.8574	2.49
59	5.00%	0.8145	2.40
60	7.00%	0.7738	3.25
61	9.00%	0.7196	3.95
62	12.00%	0.6549	4.87
63	16.00%	0.5763	5.81
64	23.00%	0.4841	7.13
65	28.00%	0.3727	6.78
66	28.00%	0.2684	4.96
67	26.00%	0.1932	3.37
68	25.00%	0.1430	2.43
69	25.00%	0.1072	1.85
70	100.00%	0.0804	5.63
		Weighted Average	62.90

Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

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 5.50% to 5.25%.
- A change in the mortality assumption for lump sums from the 2017 plan year IRC section 417(e) table for 2017 lump sums, with estimated IRC section 417(e) table for lump sums with commencement dates after 2017 projected based on Scale AA to the published IRC section 417(e) table for lump sums with 2018 and 2019 payment dates, with estimated IRC section 417(e) table for lump sums with commencement dates after 2019 projected based on the standard version of MP-2017.

These changes were made to better reflect the anticipated plan experience. Neither of these assumption changes reduced the funding shortfall; as such, approval of the Commissioner is not required.

Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

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		2								
25-29	4	2	6							
30-34	2	6	7	1						
35-39	3	3	7	3	1					
40-44	3	3	4	7	6	11				
45-49	2	5	3	11	12	11				
50-54	3	12	8	5	5	7	2	2		
55-59	5	5	9	6	11	14	7	8	10	
60-64		4	8	9	10	7	1	9	13	16
65-69		1		2	5	2		3	1	6
70+				1				1		1

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Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

Schedule SB, line 32—Schedule of Amortization Bases

Type of Base	Present Value of Installment	Date Established	Years Remaining	Amortization Installment
Shortfall	$ 29,824	January 1, 2016	5	$ 6,432
Shortfall	$ 1,128,972	January 1, 2017	6	$ 209,024
Shortfall	$ 1,608,350	January 1, 2018	7	$ 262,563

Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

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	5.50% The applicable third segment rate limitation is 6.65%.
2017 Plan Year	5.50% The applicable third segment rate limitation is 6.48%.
2018 Plan Year	5.25% The applicable third segment rate limitation is 6.29%.
Trust Expenses Included in Target Normal Cost	$232,309, 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	5.00%
56	5.00%
57	5.00%
58	5.00%
59	5.00%
60	7.00%
61	9.00%
62	12.00%
63	16.00%
64	23.00%
65	28.00%
66	28.00%
67	26.00%
68	25.00%
69	25.00%
70+	100.00%

Table 2

Retirement Rates—Terminated Vested Participants

Age	Rate
55	13.00%
56	5.00%
57	5.00%
58	5.00%
59	6.00%
60	7.00%
61	10.00%
62	13.00%
63	10.00%
64	18.00%
65+	100.00%

Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

Table 3—Page 1 of 2

Withdrawal Rates

	Years of Service			
Age	**0-1**	**2-4**	**5-9**	**10+**
20	18.00%	14.00%	15.00%	11.00%
21	22.00%	18.00%	15.00%	11.00%
22	24.00%	16.00%	15.00%	11.00%
23	25.00%	14.00%	15.00%	11.00%
24	25.00%	14.00%	14.00%	11.00%
25	21.00%	13.00%	13.00%	11.00%
26	19.00%	17.00%	8.00%	11.00%
27	13.00%	15.00%	7.00%	11.00%
28	10.00%	17.00%	8.00%	11.00%
29	7.00%	15.00%	8.00%	14.00%
30	13.00%	14.00%	9.00%	14.00%
31	13.00%	13.00%	12.00%	16.00%
32	15.00%	15.00%	12.00%	14.00%
33	15.00%	13.00%	13.00%	11.00%
34	16.00%	14.00%	14.00%	6.00%
35	13.00%	13.00%	13.00%	6.00%
36	13.00%	13.00%	12.00%	6.00%
37	12.00%	11.00%	11.00%	5.00%
38	10.00%	12.00%	9.00%	5.00%
39	8.00%	12.00%	9.00%	5.00%
40	8.00%	12.00%	9.00%	5.00%
41	8.00%	10.00%	9.00%	5.00%
42	10.00%	11.00%	9.00%	5.00%
43	13.00%	11.00%	10.00%	5.00%
44	14.00%	10.00%	9.00%	5.00%

Table 3—Page 2 of 2

Withdrawal Rates

	Years of Service			
Age	**0-1**	**2-4**	**5-9**	**10+**
45	14.00%	9.00%	9.00%	4.00%
46	13.00%	9.00%	7.00%	4.00%
47	11.00%	10.00%	7.00%	3.00%
48	7.00%	11.00%	7.00%	3.00%
49	10.00%	12.00%	7.00%	4.00%
50	7.00%	13.00%	6.00%	3.00%
51	11.00%	13.00%	7.00%	3.00%
52	13.00%	12.00%	7.00%	4.00%
53	14.00%	11.00%	8.00%	3.00%
54	13.00%	10.00%	8.00%	4.00%
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—Active Participants	Probability
Lump Sum	40.00%
Single Life Annuity	30.00%
10 Year Certain and Life	3.00%
100% Joint and Survivor Annuity	12.00%
75% Joint and Survivor Annuity	3.00%
66% Joint and Survivor Annuity	3.00%
50% Joint and Survivor Annuity	9.00%

Payment Form—Terminated Vested Participants	Probability
Single Life Annuity	50.00%
10 Year Certain and Life	5.00%
100% Joint and Survivor Annuity	20.00%
75% Joint and Survivor Annuity	5.00%
66% Joint and Survivor Annuity	5.00%
50% Joint and Survivor Annuity	15.00%

Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

Schedule SB, Part V—Summary of Plan Provisions

General Information	
Original Effective Date	January 1, 1972
Effective Date of Last Amendment	January 1, 2006
Plan Year	January 1 to December 31
Employer Fiscal Year	January 1 to December 31
Employer ID Number	13-5114230
Plan Administrator's ID Number	13-5114230
Plan Number	036
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
September 28, 2002	$50.00 plus 1/36 of contributions

Average Compensation	N/A.
Early Retirement	
Eligibility	Age 55.
Benefit	Accrued benefit reduced 1/6% per month preceding age 62.
Disability Retirement	
Eligibility	Ten years of service.
Benefit	Accrued benefit (maximum $3,000).

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 pop-up.
Single	Life annuity.
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. Present value of age 65 single life annuity as a lump sum payment. Some optional forms are subject to the restrictions of IRC section 436.

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
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

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	5.00%	1.0000	2.75
56	5.00%	0.9500	2.66
57	5.00%	0.9025	2.57
58	5.00%	0.8574	2.49
59	5.00%	0.8145	2.40
60	7.00%	0.7738	3.25
61	9.00%	0.7196	3.95
62	12.00%	0.6549	4.87
63	16.00%	0.5763	5.81
64	23.00%	0.4841	7.13
65	28.00%	0.3727	6.78
66	28.00%	0.2684	4.96
67	26.00%	0.1932	3.37
68	25.00%	0.1430	2.43
69	25.00%	0.1072	1.85
70	100.00%	0.0804	5.63
		Weighted Average	62.90

Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

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Benefit	A monthly benefit equal to the accrued benefit calculated as of the actual retirement date.
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Benefit	Accrued benefit at age 55.
Severance Benefit	
Eligibility	
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W. R. Grace & Co.-Conn. Retirement Plan for Hourly Employees of Curtis Bay Plant

EIN 13-5114230 PN 036

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

December 31, 2018

(a)	(b) Identity of issue, borrower, lessor, or similar party	(c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value	(d) Cost	(e) Current Value
*	Trust Fund of the W. R. Grace & Co. Retirement Plans	Interest in Master Trust Investment Account	$ 59,389,323	$ 78,514,870

* Represents a party-in-interest as defined by ERISA

Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

Schedule SB, line 32—Schedule of Amortization Bases

Type of Base	Present Value of Installment	Date Established	Years Remaining	Amortization Installment
Shortfall	$ 29,824	January 1, 2016	5	$ 6,432
Shortfall	$ 1,128,972	January 1, 2017	6	$ 209,024
Shortfall	$ 1,608,350	January 1, 2018	7	$ 262,563

Schedule SB Attachment (Form 5500)—2018 Plan Year
W.R. Grace & Co. Retirement Plan for Curtis Bay Plant
EIN: 13-5114230 PN: 036

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 5.50% to 5.25%.
- A change in the mortality assumption for lump sums from the 2017 plan year IRC section 417(e) table for 2017 lump sums, with estimated IRC section 417(e) table for lump sums with commencement dates after 2017 projected based on Scale AA to the published IRC section 417(e) table for lump sums with 2018 and 2019 payment dates, with estimated IRC section 417(e) table for lump sums with commencement dates after 2019 projected based on the standard version of MP-2017.

These changes were made to better reflect the anticipated plan experience. Neither of these assumption changes reduced the funding shortfall; as such, approval of the Commissioner is not required.