

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). <p style="text-align: center;">▶ Complete all entries in accordance with the instructions to the Form 5500.</p>	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 <u>01/01/2018</u> and ending <u>12/31/2018</u>			
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.)	
	☒ 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. ▶ ☒		
D	Check box if filing under:	☒ Form 5558 ☐ automatic extension ☐ the DFVC program	
	☐ special extension (enter description)		

Part II	Basic Plan Information —enter all requested information		
1a	Name of plan <u>PPG INDUSTRIES, INC. RETIREMENT PLAN F</u>	1b	Three-digit plan number (PN) ▶ <u>097</u>
		1c	Effective date of plan <u>01/28/2013</u>
2a	Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) <u>PPG INDUSTRIES, INC.</u> <u>ONE PPG PLACE</u> <u>PITTSBURGH, PA 15272</u>	2b	Employer Identification Number (EIN) <u>25-0730780</u>
		2c	Plan Sponsor's telephone number <u>412-434-3916</u>
		2d	Business code (see instructions) <u>325100</u>

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.	10/13/2019	KAREN P. RATHBURN
	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

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

Form 5500 (2018)
v. 171027

3a Plan administrator's name and address ☒ Same as Plan Sponsor	3b Administrator's EIN 3c Administrator's telephone number <div style="background-color: #cccccc; height: 40px; width: 100%;"></div>																				
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	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">5</td> <td style="width: 90%; text-align: right;">8693</td> </tr> </table>	5	8693																		
5	8693																				
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 a(2) Total number of active participants at the end of the plan year b Retired or separated participants receiving benefits..... c Other retired or separated participants entitled to future benefits d Subtotal. Add lines 6a(2) , 6b , and 6c e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits. f Total. Add lines 6d and 6e g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="background-color: #cccccc; height: 20px;"></td> </tr> <tr> <td style="width: 10%; text-align: center;">6a(1)</td> <td style="width: 90%;"></td> </tr> <tr> <td style="text-align: center;">6a(2)</td> <td></td> </tr> <tr> <td style="text-align: center;">6b</td> <td style="text-align: right;">4036</td> </tr> <tr> <td style="text-align: center;">6c</td> <td style="text-align: right;">2569</td> </tr> <tr> <td style="text-align: center;">6d</td> <td style="text-align: right;">6605</td> </tr> <tr> <td style="text-align: center;">6e</td> <td style="text-align: right;">1688</td> </tr> <tr> <td style="text-align: center;">6f</td> <td style="text-align: right;">8293</td> </tr> <tr> <td style="text-align: center;">6g</td> <td></td> </tr> <tr> <td style="text-align: center;">6h</td> <td></td> </tr> </table>			6a(1)		6a(2)		6b	4036	6c	2569	6d	6605	6e	1688	6f	8293	6g		6h	
6a(1)																					
6a(2)																					
6b	4036																				
6c	2569																				
6d	6605																				
6e	1688																				
6f	8293																				
6g																					
6h																					
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">7</td> <td style="width: 90%;"></td> </tr> </table>	7																			
7																					

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

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

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

a Pension Schedules

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

b General Schedules

- (1)** ☒ **H** (Financial Information)
- (2)** ☐ **I** (Financial Information – Small Plan)
- (3)** ☐ **A** (Insurance Information)
- (4)** ☒ **C** (Service Provider Information)
- (5)** ☒ **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 <u>PPG INDUSTRIES, INC. RETIREMENT PLAN F</u>	B Three-digit plan number (PN) ▶ <u>097</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>PPG INDUSTRIES, INC.</u>	D Employer Identification Number (EIN) <u>25-0730780</u>

E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B **F** Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500

Part I Basic Information

1 Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2018</u>			
2 Assets:			
a Market value.....	2a	<u>628408631</u>	
b Actuarial value	2b	<u>612703132</u>	
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	<u>5633</u>	<u>459379273</u>	<u>459379273</u>
b For terminated vested participants	<u>3254</u>	<u>128901660</u>	<u>128901660</u>
c For active participants			
d Total	<u>8887</u>	<u>588280933</u>	<u>588280933</u>
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐			
a Funding target disregarding prescribed at-risk assumptions	4a		
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b		
5 Effective interest rate	5	<u>5.62 %</u>	
6 Target normal cost	6	<u>2920000</u>	

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

SIGN HERE		
	Signature of actuary	<u>09/13/2019</u>
<u>NICHOLAS FRIES</u>	Type or print name of actuary	Date
		<u>17-07926</u>
<u>MERCER</u>	Firm name	Most recent enrollment number
<u>200 PUBLIC SQUARE SUITE 3760 CLEVELAND, OH 44114</u>		<u>214-830-8031</u>
	Address of the firm	Telephone number (including area code)

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

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)	100127142	
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	7751550	
9 Amount remaining (line 7 minus line 8)	92375592	
10 Interest on line 9 using prior year's actual return of 12.32 %	11383299	
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year)		
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 %		
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		
c Total available at beginning of current plan year to add to prefunding balance		
d Portion of (c) to be added to prefunding balance		
12 Other reductions in balances due to elections or deemed elections	-7635180	
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	111394071	

Part III Funding Percentages

14 Funding target attainment percentage	14	85.21%
15 Adjusted funding target attainment percentage	15	101.73%
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	108.83%
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)		18(c)

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	
b Contributions made to avoid restrictions adjusted to valuation date	19b	
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	

20 Quarterly contributions and liquidity shortfalls:

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

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

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

21 Discount rate:				
a Segment rates:	1st segment: 3.92%	2nd segment: 5.52%	3rd segment: 6.29%	☐ N/A, full yield curve used
b Applicable month (enter code)				21b 4
22 Weighted average retirement age				22
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	
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6)	31a	2920000	
b Excess assets, if applicable, but not greater than line 31a	31b	0	
32 Amortization installments:	Outstanding Balance		Installment
a Net shortfall amortization installment	9846839		1823097
b Waiver amortization installment			
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	4743097	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	4743097		4743097
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		
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a		
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b		
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39		
40 Unpaid minimum required contributions for all years	40		

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

<div>SCHEDULE C</div> <div>(Form 5500)</div> <div>Department of the Treasury Internal Revenue Service</div> <div>Department of Labor Employee Benefits Security Administration</div> <div>Pension Benefit Guaranty Corporation</div>	<div>Service Provider Information</div> <div>This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).</div> <div>▶ File as an attachment to Form 5500.</div>	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 PPG INDUSTRIES, INC. RETIREMENT PLAN F	B Three-digit plan number (PN) ▶	097
C Plan sponsor's name as shown on line 2a of Form 5500 PPG INDUSTRIES, INC.	D Employer Identification Number (EIN) 25-0730780	

Part I	Service Provider Information (see instructions)
--------	---

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

1 Information on Persons Receiving Only Eligible Indirect Compensation

- a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions)..... ☐ Yes ☒ No
- b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

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

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

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

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

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

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

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

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

(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)

PPG INDUSTRIES, INC.

25-0730780

(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 16 29 65	PLAN SPONSOR	3883881	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

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

MERCER

13-2834414

(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?
16	NONE	334720	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

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

K&L GATES

25-0921018

(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?
29	NONE	207079	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

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

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

SCHNEIDER DOWNS

25-1408703

(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	NONE	38850	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

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

OCTOBER THREE CONSULTING LLC

27-1175487

(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	NONE	320203	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

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

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

Part I Service Provider Information (continued)

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

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

Part II Service Providers Who Fail or Refuse to Provide Information

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

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

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	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) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small>	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 <u>PPG INDUSTRIES, INC. RETIREMENT PLAN F</u>	B Three-digit plan number (PN) ►	<u>097</u>
C Plan or DFE sponsor's name as shown on line 2a of Form 5500 <u>PPG INDUSTRIES, INC.</u>	D Employer Identification Number (EIN) <u>25-0730780</u>	

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: PPG INDUSTRIES INC PENSION PLAN TR

b Name of sponsor of entity listed in (a): PPG INDUSTRIES, INC.

c EIN-PN <u>25-0730780-001</u>	d Entity code <u>M</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>592872878</u>
---------------------------------------	-------------------------------	--

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):

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) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	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 PPG INDUSTRIES, INC. RETIREMENT PLAN F	B Three-digit plan number (PN) ►	097
C Plan sponsor's name as shown on line 2a of Form 5500 PPG INDUSTRIES, INC.	D Employer Identification Number (EIN) 25-0730780	

Part I Asset and Liability Statement			
1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.			
Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions.....	1b(1)		
(2) Participant contributions	1b(2)		
(3) Other.....	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit).....	1c(1)		
(2) U.S. Government securities	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other.....	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common.....	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property).....	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans.....	1c(8)		
(9) Value of interest in common/collective trusts	1c(9)		
(10) Value of interest in pooled separate accounts	1c(10)		0
(11) Value of interest in master trust investment accounts	1c(11)	582104887	592872878
(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	582104887 592872878
Liabilities			
g	Benefit claims payable	1g	
h	Operating payables	1h	76519 40756
i	Acquisition indebtedness	1i	
j	Other liabilities	1j	1199358
k	Total liabilities (add all amounts in lines 1g through 1j)	1k	1275877 40756
Net Assets			
l	Net assets (subtract line 1k from line 1f)	1l	580829010 592832122

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.

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

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		-31187582
(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		-31187582

Expenses

e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	34417621	
(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)		34417621
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)	580649	
(2) Contract administrator fees	2i(2)		
(3) Investment advisory and management fees	2i(3)		
(4) Other	2i(4)	4205577	
(5) Total administrative expenses. Add lines 2i(1) through (4)	2i(5)		4786226
j Total expenses. Add all expense amounts in column (b) and enter total	2j		39203847

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k		-70391429
l Transfers of assets:			
(1) To this plan	2l(1)		82394541
(2) From this plan	2l(2)		

Part III Accountant's Opinion

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

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

(1) ☐ Unqualified (2) ☐ Qualified (3) ☒ Disclaimer (4) ☐ Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)?

☒ Yes ☐ No

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

(1) Name: SCHNEIDER DOWNS & CO., INC.

(2) EIN: 25-1408703

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:

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.)

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.)

	Yes	No	Amount
4a		X	
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		1500000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	4f		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?	4g		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?	4h		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	4i	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.)	4j		X	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	4k		X	
l Has the plan failed to provide any benefit when due under the plan?	4l		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	4m		X	
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.	4n		X	

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 4157665. (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 <u>PPG INDUSTRIES, INC. RETIREMENT PLAN F</u>	B Three-digit plan number (PN) ▶ <u>097</u>
C Plan sponsor's name as shown on line 2a of Form 5500 <u>PPG INDUSTRIES, INC.</u>	D Employer Identification Number (EIN) <u>25-0730780</u>

Part I	Distributions
---------------	----------------------

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

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions	1	
2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits): EIN(s):		
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	<u>0</u>

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

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

Schedule R (Form 5500) 2018
v. 171027

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

b The plan year immediately preceding the current plan year

c The second preceding plan year

14a**14b****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

b The corresponding number for the second preceding plan year

15a**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

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

16a**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: 20.0% Investment-Grade Debt: 66.8% High-Yield Debt: 5.9% Real Estate: 7.3% 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):

PPG INDUSTRIES, INC. RETIREMENT PLAN F

Financial Statements
As of December 31, 2018 and 2017 and
for the year ended December 31, 2018

and Independent Auditors' Report Thereon



SCHNEIDER DOWNS

Big Thinking. Personal Focus.

www.schneiderdowns.com

C O N T E N T S

	<u>PAGE</u>
INDEPENDENT AUDITORS' REPORT	1
FINANCIAL STATEMENTS:	
Statements of Net Assets Available for Benefits, December 31, 2018 and 2017	3
Statement of Changes in Net Assets Available for Benefits for the year ended December 31, 2018	4
Notes to Financial Statements	5

NOTE: All schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because they are not applicable.



Big Thinking. Personal Focus.

INDEPENDENT AUDITORS' REPORT

To the Participants and Plan Administrator of the PPG Industries, Inc. Retirement Plan F:

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of the PPG Industries, Inc. Retirement Plan F (Plan), which comprise the statements of net assets available for benefits as of December 31, 2018 and 2017, and the related statement of changes in net assets available for benefits for the year ended December 31, 2018, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of 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 (DOL) Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 (ERISA), the Plan administrator instructed us not to perform, and we did not perform, any auditing procedures with respect to the information summarized in Note 10, which was certified by The Bank of New York Mellon/BNY Mellon, N.A., the trustee of the Plan, except for comparing such information with the related information included in the financial statements. We have been informed by the Plan administrator that the trustee holds the Plan's investment assets and executes investment transactions. The Plan administrator has obtained a certification from the trustee as of December 31, 2018 and 2017 and for the year ended December 31, 2018 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.

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

The form and content of the information included in the financial statements, other than that derived from the information certified by the 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 DOL's Rules and Regulations for Reporting and Disclosure under ERISA.

Schneider Downs & Co. Inc.

Pittsburgh, Pennsylvania
October 7, 2019

PPG INDUSTRIES, INC. RETIREMENT PLAN F

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

	December 31	
	2018	2017
ASSETS		
Plan interest in PPG Industries, Inc. Pension Plan Trust Commingled Fund	<u>\$ 592,872,878</u>	<u>\$ 582,104,887</u>
Total Assets	592,872,878	582,104,887
LIABILITIES		
Accrued administrative expense	40,756	76,519
Payable to Vitro Flat Glass LLC Pension Plan Trust	<u>-</u>	<u>1,199,358</u>
Total Liabilities	<u>40,756</u>	<u>1,275,877</u>
NET ASSETS AVAILABLE FOR BENEFITS	<u><u>\$ 592,832,122</u></u>	<u><u>\$ 580,829,010</u></u>

See notes to financial statements.

PPG INDUSTRIES, INC. RETIREMENT PLAN F

STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
FOR THE YEAR ENDED DECEMBER 31, 2018

DEDUCTIONS:

Plan interest in PPG Industries, Inc. Pension Plan	
Trust Commingled Fund investment loss	\$ 31,187,582
Benefits paid directly to participants	34,417,621
Administrative expenses	<u>4,786,226</u>
Net Decrease Before Transfer Of Plan Assets	(70,391,429)

TRANSFER FROM PPG INDUSTRIES, INC. RETIREMENT PLAN C	<u>82,394,541</u>
--	-------------------

Net Increase	12,003,112
--------------	------------

NET ASSETS AVAILABLE FOR BENEFITS:

Beginning of year	<u>580,829,010</u>
End of year	<u>\$ 592,832,122</u>

See notes to financial statements.

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND 2017

(In Millions of Dollars)

NOTE 1 - DESCRIPTION OF THE PLAN

The following brief description of the PPG Industries, Inc. (Company) Retirement Plan F (Plan) is provided for general information purposes only. Participants should refer to the Plan document for complete information.

General and Eligibility - The Plan is a defined benefit pension plan that was established on January 28, 2013 and provides for participants whose benefits were previously provided under the PPG Industries, Inc. Retirement Income Plan and the PPG Industries, Inc. Retirement Pension Plan (collectively referred to herein as the Former Plans), and who are determined to be eligible based on requirements as defined in each appendix of the Plan document. The Former Plans were frozen to new entrants in 2006.

On October 3, 2016, the Company completed the sale of its flat glass manufacturing and glass coatings operations to Vitro S.A.B. de C.V (Vitro), effective October 1, 2016. The Company transferred the Plan's liabilities associated with those Plan participants impacted by the transaction to Vitro during 2016. The final transfer of assets of \$1 was recorded as a payable to the Vitro Flat Glass LLC Pension Plan Trust as of December 31, 2017, since it was not determinable in 2016. The transfer of these funds occurred on August 6, 2018.

On November 30, 2017 the Company approved the spinoff and merger of PPG Industries, Inc. Retirement Plan C (Plan C) inactive retirees into the Plan before the end of 2017. The Company transferred an initial amount of assets of \$176 and benefit obligation of \$180 from Plan C to Plan F on December 29, 2017, which represented approximately 90% of the estimated transfer. The remaining transfer of assets of \$82 occurred in 2018.

The HR Director of Global Benefits and Mobility of the Company is the Plan administrator who controls and manages the operation and administration of the Plan. The Bank of New York Mellon, N.A. (BNY Mellon) serves as the trustee of the Plan. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA).

Benefits - Eligible employees become vested after five years of continuous service and are entitled to pension benefits upon retirement as defined by the Plan document. The Plan provides for normal retirement upon reaching normal retirement age, as defined in the Plan document, and has provisions for early retirement and disability benefits for those persons who are eligible to receive such benefits. Monthly benefits under the Plan for all former hourly employees are equal to those benefits determined under terms of the appropriate index in the Plan document, as amended to the date of retirement or termination. Monthly benefits under the Plan for all salaried employees vary depending on the employee's date of retirement, final average monthly earnings and the years of continuous service, as defined by the appropriate index in the Plan document. Such benefits may be reduced by early retirement, survivor benefits or other elected options.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A summary of significant accounting policies consistently applied by the Plan administrator in the preparation of the accompanying financial statements is as follows:

Basis of Accounting - The accompanying financial statements of the Plan have been prepared on the accrual basis of accounting.

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND 2017

(In Millions of Dollars)

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Use of Accounting Estimates - The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) requires the Plan administrator to make estimates and assumptions that affect the reported amounts of assets, liabilities and changes therein, the actuarial present value of accumulated plan benefits and the changes therein, and disclosure of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

Investment Valuation and Income Recognition - The Plan's investment in the PPG Industries, Inc. Pension Plan Trust Commingled Fund (Trust) is reported at fair value, which 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. The Company's U.S. Benefits Investment Committee determines the Plan's valuation policies utilizing information provided by the investment advisers, custodians and insurance company. See Note 4 for discussion of fair value measurement.

Purchases and sales of securities are recorded on a trade-date by the Trust. Interest income is recorded on the accrual basis by the Trust. Dividends are recorded on the ex-dividend date by the Trust. The Plan's interest in PPG Industries, Inc. Pension Plan Trust Commingled Fund investment loss includes the Plan's gains and losses on investments bought and sold as well as held during the year, along with interest and dividends.

Risks and Uncertainties - The Plan utilizes various investment instruments, including equity securities, debt securities, real estate, other assets and interest-bearing cash. Investment securities, in general, are exposed to various risks, such as interest rate, credit risk and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements.

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

Payment of Benefits - Benefit payments to participants are recorded upon distribution.

Expenses - The Plan's expenses are paid either by the Plan or the Company, as provided by the Plan document. Certain expenses incurred in connection with the general administration of the Plan that are paid by the Plan are recorded as deductions in the accompanying statement of changes in net assets available for benefits. In addition, certain investment-related expenses are included in Plan interest in PPG Industries, Inc. Pension Plan Trust Commingled Fund investment income presented in the accompanying statement of changes in net assets available for benefits.

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND 2017

(In Millions of Dollars)

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Recent Accounting Pronouncements - In February 2017, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2017-06 Plan Accounting: Employee Benefit Plan Master Trust Reporting (ASU 2017-06), which clarifies presentation requirements for a plan's interest in a master trust and requires more detailed disclosure of the plan's interest in the master trust. The amendment removes the requirement to disclose the percentage interest in the master trust for plans with divided interest and requires that all plans disclose the dollar amount of their interest in each of these general types of investments. The amendment also requires all plans to disclose their master trust's other asset and liability balances and the dollar amount of the plan's interest in each of those balances. ASU 2017-06 is effective for the Plan beginning after December 15, 2018, with early adoption permitted and retrospective application required. The Plan administrator is currently assessing the impact of ASU 2017-06.

In August 2018, the FASB issued ASU No. 2018-13 Fair Value Measurement (Topic 820) Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement (ASU 2018-13), which modifies the disclosure requirements on fair value measurements in Topic 820, Fair Value Measurement, based on the concepts in the Concepts Statement, including the consideration of costs and benefits. This includes removal of the following disclosure requirements: (1) the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, (2) the policy for timing of transfers between levels, (3) the valuation processes for Level 3 fair value measurements, and (4) for nonpublic entities, the changes in unrealized gains and losses for the period included in earnings for recurring Level 3 fair value measurements held at the end of the reporting period. It also includes modifications to the following disclosure requirements: (1) in lieu of a rollforward for Level 3 fair value measurements, disclosure of transfers into and out of Level 3 of the fair value hierarchy and purchases and issues of Level 3 assets and liabilities, (2) for investments in certain entities that calculate net asset value, disclosure of the timing of liquidation of an investee's assets and the date when restrictions from redemption might lapse only if the investee has communicated the timing to the entity or announced the timing publicly, and (3) clarification that the measurement uncertainty disclosure is to communicate information about the uncertainty in measurement as of the reporting date. It also includes the following additional disclosure requirement, which is required for public entities: the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. For certain unobservable inputs, an entity may disclose other quantitative information (such as the median or arithmetic average) in lieu of the weighted average if the entity determines that other quantitative information would be a more reasonable and rational method to reflect the distribution of unobservable inputs used to develop Level 3 fair value measurements. ASU 2018-13 is effective for the Plan beginning after December 15, 2019, with early adoption permitted. The Plan administrator has elected to adopt ASU 2018-13 for 2018, and removed the disclosure of unobservable inputs for Level 3 assets, policy for timing of transfers between levels and amount of transfers between Level 1 and Level 2, and added disclosure of transfers into and out of Level 3 of the fair value hierarchy and purchases and issues of Level 3 assets and liabilities in lieu of a rollforward for Level 3 fair value measurements.

Subsequent Events - The Plan administrator has evaluated subsequent events through October 7, 2019, the date on which the financial statements were available to be issued.

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND 2017

(In Millions of Dollars)

NOTE 3 - ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS

Accumulated plan benefits are those future periodic payments, including lump-sum distributions that are attributable under the Plan's provisions to the service that employees have rendered as of the valuation date. Accumulated plan benefits include benefits expected to be paid to (a) retired, terminated or transferred employees or their beneficiaries, (b) beneficiaries of employees who have died, and (c) present employees or their beneficiaries. Benefits payable under all circumstances, including retirement, death, disability and termination of employment, are included to the extent that they are deemed attributable to employee service rendered to the date upon which the benefit information is presented.

As of December 31, the actuarial present value of accumulated plan benefits is as follows:

	<u>2018</u>	<u>2017</u>
Vested benefits:		
Inactive participants with deferred benefits	\$ 127	\$ 141
Inactive participants receiving benefits	<u>388</u>	<u>377</u>
	<u>\$ 515</u>	<u>\$ 518</u>

The changes in the actuarial value of accumulated plan benefits for the year ended December 31, 2018 was as follows:

Actuarial present value of accumulated plan benefits	
Beginning of year, January 1	\$ 518
(Decrease) increase during the year attributable to:	
Benefits accumulated and gains	(1)
Increase for interest due to decrease in discount period	34
Benefits paid directly to participants	(34)
Change in assumptions	<u>(2)</u>
Net Decrease	<u>(3)</u>
Actuarial present value of accumulated plan benefits end of year, December 31	<u>\$ 515</u>

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

The significant actuarial assumptions used in determining accumulated plan benefits were (a) the Mercer-modified RP-2014 mortality table (MRP-2006) and the Mercer-modified MP-2018 generational projection scale (MMP-2018) at December 31 2018, and the Mercer-modified RP-2014 mortality table (MRP-2007) and the Mercer-modified MP-2016 projection scale (MMP-2016) at December 31, 2017, (b) an assumed average retirement age of 61 at December 31, 2018 and 2017, and (c) an interest rate of 6.75% as of December 31, 2018 and 2017.

The foregoing actuarial assumptions are based on the presumption that the Plan will continue. If the Plan were to terminate, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated plan benefits.

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND 2017

(In Millions of Dollars)

NOTE 4 - INTEREST IN PPG INDUSTRIES, INC. PENSION PLAN TRUST COMMINGLED FUND

The Plan's investments are in the Trust, which was established for the investment of assets of the Plan and with one other Company-sponsored retirement plan. Each participating retirement plan has an undivided interest in the Trust. The assets of the Trust are held by BNY Mellon. The Plan is allocated its interest in the assets and earnings of the Trust. The investment assets of the Plan consist of an undivided interest in the Total Combined PPG Fund (Fund) of the Trust. Use of the Fund permits the commingling of the Trust assets of the pension plans of the Company for investment and administrative purposes.

The value of the Plan's interest in the Trust is based on the beginning of year value of the Plan's interest in the Trust plus actual contributions and allocated investment income and losses less actual distributions and allocated administrative expenses. Investment gains and losses and administrative expenses relating to the Trust are allocated to the individual plans based upon the amount of time that the Plan's assets were invested in the Trust. At December 31, 2018 and 2017, the Plan's interest in the net assets of the Trust was approximately 51.9% and 48.4%, respectively.

The net assets of the Trust as of December 31 are summarized as follows:

	2018	2017
Assets of the Total Combined PPG Fund:		
Investments:		
Equity securities	\$ 361	\$ 451
Debt securities	640	631
Real estate	101	99
Other assets	41	34
Securities lending collateral	34	26
Total investments	1,177	1,241
Receivable for investments sold	93	144
Payable for investments purchased	(100)	(158)
Obligation to return securities lending collateral	(34)	(26)
Income receivable	7	2
Net assets available for benefits	\$ 1,143	\$ 1,203

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND 2017

(In Millions of Dollars)

NOTE 4 - INTEREST IN PPG INDUSTRIES, INC. PENSION PLAN TRUST COMMINGLED FUND

(Continued)

The net earnings/losses of the Trust are allocated monthly to each plan participating in the Trust based on the relationship of the undivided interest of each plan in the Trust at the end of the month to the total of the undivided interests of the two plans participating in the Trust. The changes in the net assets of the Trust for the year ended December 31, 2018 are summarized as follows:

Net depreciation in fair value of investments	\$ (84)
Interest and dividends	23
Investment advisory and management fees	(5)
Net investment loss	(66)
Net transfers	7
Administrative expenses	(1)
Net decrease	(60)
Beginning of year net assets available for benefits	1,203
End of year net assets available for benefits	\$ 1,143

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quotes prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described as follows:

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

Level 2 - Inputs to the valuation methodology include:

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

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

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

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

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND 2017

(In Millions of Dollars)

NOTE 4 - INTEREST IN PPG INDUSTRIES, INC. PENSION PLAN TRUST COMMINGLED FUND

(Continued)

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2018 and 2017.

Equity Securities - Valued at the closing price reported on the active market on which the individual securities are traded. Holdings in publicly traded equity securities of issuers in both developed markets and emerging economies are valued using pricing models maximizing the use of observable inputs for similar securities.

Debt Securities - Valued using pricing models maximizing the use of observable inputs for similar securities. This includes basing value on yields currently available on comparable securities of issuers with similar credit ratings. When quoted prices are not available for identical or similar securities, inputs used for the valuation can include a discounted cash flows approach that maximizes observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that might not be observable, such as credit and liquidity risks or a broker quote if available.

Real Estate - Valued using external appraisals that are performed at least annually by reputable, independent appraisal firms. External appraisals are performed in accordance with the Uniform Standards of Professional Appraisal Practices. Key inputs and assumptions to determine fair value include, among others, rental revenue and expense amounts and the related revenue and expense growth rates, terminal capitalization rates and discount rates. Property valuations are also reviewed on a regular basis and are adjusted if there has been a significant change in circumstances related to the property since the last valuation.

Other Assets - Consists of primarily limited partnership funds that target investments into senior secured debt obligations of small and medium enterprises. Key inputs to determine fair value include, but are not limited to, the enterprise value of a portfolio company, the nature and realizable value of any collateral, the portfolio company's ability to make payments and its earnings and discounted cash flows, the markets in which the portfolio company does business, comparisons to publicly traded securities, and changes in the interest rate environment and the credit markets generally that may affect the price at which similar investments may be made.

Interest-Bearing Cash - Valued using net asset value, which approximates fair value based upon the short-term nature of this investment.

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND 2017

(In Millions of Dollars)

NOTE 4 - INTEREST IN PPG INDUSTRIES, INC. PENSION PLAN TRUST COMMINGLED FUND

(Continued)

The investments of the Trust that are reported at fair value on a recurring basis as of December 31 are as follows:

	2018			
	Level 1	Level 2	Level 3	Total
Equity securities	\$ 144	\$ 217	-	\$ 361
Debt securities	72	491	\$ 77	640
Real estate	-	-	101	101
Other assets	-	-	41	41
Securities lending collateral:				
Interest-bearing cash	-	34	-	34
Total investments at fair value	<u>\$ 216</u>	<u>\$ 742</u>	<u>\$ 219</u>	<u>\$ 1,177</u>

	2017			
	Level 1	Level 2	Level 3	Total
Equity securities	\$ 127	\$ 324	-	\$ 451
Debt securities	68	477	\$ 86	631
Real estate	-	-	99	99
Other assets	-	-	34	34
Securities lending collateral:				
Interest-bearing cash	-	26	-	26
Total investments at fair value	<u>\$ 195</u>	<u>\$ 827</u>	<u>\$ 219</u>	<u>\$ 1,241</u>

During the years ended December 31, 2018 and December 31, 2017, purchases of Level 3 assets were \$78 and \$240, respectively. During the years ended December 31, 2018 and December 31, 2017, sales of Level 3 assets were \$81 and \$225, respectively. There were no transfers into or out of Level 3 for the years ended December 31, 2018 and 2017, respectively

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND 2017

(In Millions of Dollars)

NOTE 5 - SECURITIES LENDING

The Trust is authorized to engage in the lending of certain investments under the terms of a Securities Lending Authorization Agreement. Securities lending is an investment management enhancement that utilizes certain existing securities of the Trust to earn additional income. Securities lending involves the loaning of securities to approved banks and broker/dealers. In return for the loaned securities, the trustee, prior to or simultaneous with the delivery of the loaned securities to the borrower, receives collateral in the form of cash or U.S. government securities as a safeguard against possible default of any borrower on the return of the loan under terms that permit the Trust to repledge or sell the securities. The collateral is marked to market on a daily basis. In the event the counterparty is unable to meet its contractual obligation under the securities lending arrangement, the Plan may incur losses equal to the amount by which the market value of the securities differ from the amount of collateral held. The Plan mitigates credit risk associated with securities lending arrangements by monitoring the fair value of the securities loaned on a daily basis, with additional collateral obtained or refunded as necessary.

The Trust maintains full ownership rights to the securities loaned and, accordingly, classifies loaned securities as investments. Because the securities received as collateral may be repledged or sold, the Trust recognizes the amount of collateral received and a corresponding obligation to return such collateral on the statements of net assets available for benefits (see Note 4). The fair value of securities on loan was approximately \$33 and \$25 and the fair value of collateral was approximately \$34 and \$26, respectively, at December 31, 2018 and 2017.

	Gross Amounts of Recognized Liabilities	Net Amount of Liabilities Presented in the Financial Statements	Gross Amounts Not Offset in Financial Statements		
			Financial Instruments	Cash Collateral Pledged	Net Amount
December 31, 2018					
Securities Lending					
Authorization Agreement					
Mellon Bank, N.A.	\$ 34	\$ 34	\$ 33	N/A	\$ 1
December 31, 2017					
Securities Lending					
Authorization Agreement					
Mellon Bank, N.A.	\$ 26	\$ 26	\$ 25	N/A	\$ 1

NOTE 6 - FUNDING POLICY

Contributions to provide benefits under the Plan are made solely by the Company. The Company's funding policy is to make contributions to the Plan based on the calculations of the Plan's actuary using the unit credit cost method, which consists of normal cost, plus amortization of unfunded prior service costs over a 40-year period or less.

The Company met the minimum funding requirements of ERISA for the years ended December 31, 2018 and 2017.

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2018 AND 2017
(In Millions of Dollars)

NOTE 7 - PLAN TERMINATION

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

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

1. Benefits attributable to employee contributions, taking into account those paid out before termination.
2. Annuity benefits that former employees or their beneficiaries have been receiving for at least three years, or that employees eligible to retire within that three-year period would have been receiving if they had retired with benefits in the normal form of annuity under the Plan. The priority amount is limited to the lowest benefit that was payable (or would have been payable) during those three years. The amount is further limited to the lowest benefit that would be payable under Plan provisions in effect at any time during the three years preceding Plan termination.
3. Other vested benefits insured by the Pension Benefit Guaranty Corporation (PBGC) (a U.S. government agency) up to the applicable limitations.
4. All other vested benefits (that is, vested benefits not insured by the PBGC).
5. All nonvested benefits.

Certain benefits under the Plan are insured by the PBGC if the Plan terminates. Generally, the PBGC guarantees most vested normal age retirement benefits, early retirement benefits, and certain disability and survivor's 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 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.

NOTE 8 - TAX STATUS

The Plan obtained its latest determination letter on March 23, 2017, in which the Internal Revenue Service (IRS) states that the Plan, as then designed, was in compliance with the applicable requirements of the Internal Revenue Code (IRC). The Plan has been amended since receiving the determination letter. However, the Plan administrator believes that the Plan is currently designed and being operated in compliance with the applicable requirements of the IRC.

PPG INDUSTRIES, INC. RETIREMENT PLAN F

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2018 AND 2017

(In Millions of Dollars)

NOTE 8 - TAX STATUS (Continued)

U.S. GAAP requires Plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Plan administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2018 and 2017, there are no uncertain positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions. In March 2018, the Plan administrator was notified by the Department of Labor that the Plan has been selected for an examination for the time period from January 1, 2015 through March 2018. The examination is not yet finalized as of the date these financial statements were approved for issuance. The Plan administrator believes that the Plan is no longer subject to income tax examinations for years prior to 2015.

NOTE 9 - RELATED-PARTY TRANSACTIONS AND PARTY-IN-INTEREST TRANSACTIONS

The Plan invests in certain funds managed by BNY Mellon. The Plan paid certain expenses related to Plan operations and investment activity to the various service providers and the Company, including an allocation of salaries of employees who perform administrative functions on behalf of the Plan. These transactions are party-in-interest transactions under ERISA.

NOTE 10 - CERTIFIED INVESTMENTS (UNAUDITED)

The Plan administrator has elected the method of compliance permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Investments held at December 31, 2018 and 2017, and plan interest in PPG Industries, Inc. Pension Plan Trust Commingled Fund investment loss for the year ended December 31, 2018, that is disclosed in the accompanying financial statements, was obtained or derived from information supplied to the Plan administrator and certified as complete and accurate by BNY Mellon, the trustee of the Plan.

[This Page Intentionally Left Blank.]

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500 or 5500-SF.	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 PPG INDUSTRIES, INC. RETIREMENT PLAN F	B Three-digit plan number (PN) ►	097
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF PPG INDUSTRIES, INC.	D Employer Identification Number (EIN) 25-0730780	
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B		
F Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500		

Part I Basic Information			
1 Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2018</u>			
2 Assets:			
a Market value.....	2a	628,408,631	
b Actuarial value	2b	612,703,132	
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	5,633	459,379,273	459,379,273
b For terminated vested participants	3,254	128,901,660	128,901,660
c For active participants	0	0	0
d Total	8,887	588,280,933	588,280,933
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.....	5.62%		
6 Target normal cost	2,920,000		

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

SIGN HERE	 Signature of actuary	<u>9/13/2019</u> Date 1707926 Most recent enrollment number 214-830-8031 Telephone number (including area code)
NICHOLAS FRIES Type or print name of actuary		
MERCER Firm name		
200 PUBLIC SQUARE, SUITE 3760 CLEVELAND OH 44114 Address of the firm		

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

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

21 Discount rate:			
a Segment rates:	1st segment: 3.92 %	2nd segment: 5.52 %	3rd segment: 6.29 %
			☐ N/A, full yield curve used
b Applicable month (enter code).....			21b 4
22 Weighted average retirement age 22			
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	2,920,000	
b Excess assets, if applicable, but not greater than line 31a	31b	0	
32 Amortization installments:		Outstanding Balance	Installment
a Net shortfall amortization installment.....		9,846,839	1,823,097
b Waiver amortization installment		0	0
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount		33	
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)....		34	4,743,097
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement.....	4,743,097	0	4,743,097
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	
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, Line 24 – Changes in Actuarial Assumptions

- The expense component of normal cost was updated to reflect our expectations for the current plan year.

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

Actuarial assumptions

DISCOUNT RATE SPONSOR ELECTIONS

• Segment rates or full yield curve	Segment		
• Look-back months	4		
	<u>Stabilized</u>	<u>Nonstabilized</u>	
• First 5 years	3.92%	1.75%	
• Next 15 years	5.52%	3.76%	
• Over 20 years	6.29%	4.66%	

MORTALITY SPONSOR ELECTIONS

• Healthy participants	Section 430(h)(3) prescribed separate static annuitant and non-annuitant mortality tables. These tables are based on the RP-2014 mortality tables and adjusted for mortality improvement using Scale MP-2016.
• Pre-1995 disabilities	Revenue Ruling 96-7 table for participants who became disabled before 1995
• Post-1994 disabilities	Revenue Ruling 96-7 table for participants who became disabled after 1994 and are eligible for Social Security disability benefits

OTHER ECONOMIC ASSUMPTIONS

• Expected investment return	Plan F return for 2017 is 6.00% per year Return is capped at the third segment rate
• Expenses	Last year expenses rounded to nearest \$10,000.
— Plan F	\$2,920,000 added to current year normal cost

DEMOGRAPHIC ASSUMPTIONS

• Benefit commencement age for			
— Future vested deferred	62		
— Current vested deferred	62		
• Spouse assumptions	<u>Male participants</u>	<u>Female participants</u>	
— Percentage married	75%	60%	
— Spouse age difference	3 years younger	2 years older	
Form of payment		<u>Single life</u>	<u>QJSA</u>
• Future deaths		0%	100%
• Current vested deferred		50%	50%
Unpredictable contingent event assumptions	Not applicable		

Schedule SB, Part V — Statement of Actuarial Assumptions/Methods**Actuarial Methods for Funding*****Asset Methods***

The asset valuation method is an average of the adjusted market value for the last year preceding the valuation date. The adjusted market value is the market value at each determination date adjusted to the valuation date based on actual cash flows and expected interest at the lesser of the expected rate of return and the third segment rate. This amount is adjusted to be no greater than 110 percent and no less than 90 percent of the fair market value, as defined in IRC Section 430.

A characteristic of this asset method is that, over time, it is slightly more likely to produce an actuarial value of assets that is less than the market value of assets than an actuarial value that is greater than the market value.

Participant Methods

Participants or former participants are included or excluded from the valuation as described below:

- **Participants included:** The plan sponsor provides us with data on employees participating in the plan who incurred changes during the year as of the valuation date. Participants not reported are assumed to continue with the same information as the prior year.
- **Participants excluded:** No actuarial liability is included for nonvested participants who terminated prior to the valuation date. For this purpose, participants with a break in service on the valuation date are treated as terminated participants.
- **Insurance contracts:** The plan does not have any insurance contracts.

Minimum Funding Methods

The funding target for minimum funding calculations is computed using the traditional unit credit method of funding. The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, the total pension to which each participant is expected to become entitled at retirement is broken down into units, each associated with a year of past or future credited service. A detailed description of the calculation follows:

- The plan's valuation date is the beginning of the plan year.
- An individual's **funding target** is the present value of future benefits based on credited service and average pay as of the beginning of the plan year, and an individual's **target normal cost** is the present value of the benefit expected to accrue in the plan year. If multiple decrements are used, the funding target and the target normal cost for an individual is the sum of the component funding targets and target normal costs associated with the various anticipated separation dates.
- This plan provides benefits that are not a function of a participant's accrued benefit or years of service. This benefit is allocated to funding target based on the ratio of the participant's service at the beginning of the plan year to their service at each decrement age and is allocated to target

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

normal cost based on the proportionate benefit attributable to the increase in the participant's service and compensation during the plan year.

- This plan provides disability/death benefits that are only partially based on a participant's accrued benefit or years of service. This benefit is allocated to funding target based on the accrued benefit on the valuation date plus a portion of the excess of the benefit over the accrued benefit multiplied by the ratio of the participant's service at the beginning of the plan year to their service at each decrement age. This benefit is allocated to target normal cost based on the proportionate benefit attributable to the increase in the participant's service and compensation during the plan year.
- The plan's **target normal cost** is the sum of the individual target normal costs, and the plan's **funding target** is the sum of the individual funding targets for all participants under the plan.

Schedule SB, Part V — Summary of Plan Provisions

Benefits Included or Excluded

Unless noted below, all benefits provided by the plan, as restated and amended through the measurement date, are included in this valuation.

- **Most recent plan amendment included:** Amendments adopted by the valuation date or effective by the end of the plan year are included in this valuation.
- **Plan amendments excluded:** Amendments adopted after the valuation date or effective after the current plan year are excluded from the valuation.
- **Late retirement increases:**
 - *Active participants:* Current active participants over normal retirement age are valued using their accrued benefit. PPG provides suspension of benefit notices so actives are not entitled to late retirement increased until after age 70.5. Therefore, late retirement actuarial increases are deemed to be immaterial for the purposes of this valuation.
 - *Deferred vested participants:* Current deferred vested participants over normal retirement age are valued including the late retirement actuarial increase.
- **Internal Revenue Code limitations:** The limitations of Internal Revenue Code Sections 415(b) and 401(a)(17) have been incorporated into our calculations.
- **IRC Section 416 rules for top-heavy plans:** We did not test whether this plan is top-heavy (when the present value of benefits for key employees equals or exceeds 60 percent of the present value for all participants). However, we expect that the plan is not top-heavy due to the large number of rank-and-file participants; therefore, the funding target and target normal cost do not reflect any liability for top-heavy benefit accruals.

Plan Provisions Specific to Funding

Additional Benefits Included or Excluded

- **IRC Section 436 benefit restrictions:**
- *Unpredictable contingent event benefits:* This valuation excludes restricted contingent event benefits that occurred before the valuation date but includes contingent event benefits which are expected to occur on or after the valuation date regardless of anticipated funding-based limitations.
- *Plan amendments:* See above.
- *Prohibited payments:* Limitations on prohibited benefits (if any) are reflected for annuity starting dates before the valuation date but are ignored for annuity starting dates on or after the valuation date.
- *Benefit accruals:* The plan's funding target does not reflect any limitation on benefit accruals. The target normal cost does not reflect any limitation on benefit accruals.
- **Scheduled benefit increases:** Scheduled benefit increases effective after the end of the current plan year are excluded from minimum funding requirements.
- **Unpredictable contingent event benefits:** The plan does not have any unpredictable contingent event benefits.

Schedule SB, Part V — Summary of Plan Provisions

Plan Provision Changes Since Prior Valuation

- Maximum compensation amounts and maximum benefit amounts under IRS rules were updated from 2017 to 2018.

Summary of Major Plan Provisions

The following is a summary of what we understand to be the most relevant plan provisions for purposes of actuarial valuations. This summary should not be used for purposes of determining plan benefits under the plans.

The Retirement Income Plan and the Retirement Pension Plan were restructured effective as of January 28, 2013. As a result of the restructuring, the Retirement Income Plan and Retirement Pension Plan were replaced by six separate pension plans.

Plan Name	Appendices
Retirement Plan A	Former Retirement Income Plan: Salaried Former Retirement Pension Plan: Fresno, Mt. Zion This plan merged into Retirement Plan C as of December 31, 2016.
Retirement Plan B	Former Retirement Income Plan: Salaried, Shelby, Lexington, Chester This plan merged into Retirement Plan F as of December 31, 2017.
Retirement Plan C	Former Retirement Income Plan: Salaried, Cleveland, Crestline, Glass Voluntary, Tipton Former Retirement Pension Plan: Barberton, Circleville, Creighton, Delaware, East Point, Greensboro, Lake Charles, Louisville, Memphis C&S, Natrium, Oak Creek, Springdale, Lansing, Evert
Retirement Plan D	This plan was terminated with final benefits distributed June 30, 2014
Retirement Plan E	Former Retirement Income Plan: Salaried, Shelby, Lexington, Chester This plan merged into Retirement Plan F as of July 31, 2016.

Schedule SB, Part V — Summary of Plan Provisions

Retirement Plan F	<p>Former Retirement Income Plan: Salaried, Atlanta Ink, Baltimore, Barberton, Beaumont, Brine-Field, Glass-CIO, Circleville, Cleveland, Columbus, Corpus Christi, Crestline, Glass-Cutters, Dallas C&S, Delaware, East Point, Elizabethport, Fort Lauderdale, Fresno, Glass-Clerical, Glass Voluntary, Greensboro, Greensburg, Houston, Jersey City, Knoxville, Kokomo, Lake Charles, Lincoln, Memphis C&R, Memphis C&S, Mt. Zion, Natrium, Oak Creek, Roanoke, Springdale Clerical, Springdale Hourly, Stockertown, Tipton, PRC-DeSoto International, Inc.,</p> <p>Former Retirement Pension Plan: Barberton, Circleville, Creighton, Creighton Clerical, Crystal City, Crystal City Clerical, Delaware, East Point, Ford City, Ford City Clerical, Fresno, Greensboro, Greensburg, Kokomo, Lake Charles, Louisville, Memphis C&S, Mt. Zion, Natrium, Oak Creek, Roanoke, Springdale, Stockertown, Torrance, Cumberland, Lansing, Evert</p>
-------------------	---

Glass CIO

Effective date	January 14, 1950
Group Number	050
Status of the plan	The Appendix is frozen to new entrants and no longer has ongoing benefit accruals.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	<p>A + B + C plus \$5.00 where:</p> <p>A=\$26.00 x continuous service (maximum 18 years)</p> <p>B=\$28.00 x continuous service (between 19 and 28 years)</p> <p>C=\$30.00 x continuous service (over 28 years)</p>
— Participants of the Glass CIO plan at the Ford City location	<p>A + B + C + D where:</p> <p>A=\$18.95 x continuous service (maximum 18 years)</p> <p>B=\$20.20 x continuous service (between 19 and 28 years)</p> <p>C=\$21.70 x continuous service (over 28 years)</p> <p>D = \$5.00</p>

Schedule SB, Part V — Summary of Plan Provisions

Auto Glass Divestiture	Continuous service for purposes of benefit accruals was frozen effective September 30, 2008 due to the divestiture of the auto glass business.
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service or Age 55 plus years of service equals 85
• Benefit	See Exhibit A
Special early retirement	
• Eligibility	Age 62 with 15 years continuous service
• Benefit	Accrued Benefit payable immediately plus temporary supplement payable to 65 equal to the benefit using \$16/\$18/\$20 levels and service at retirement.
Special 30-year retirement¹	
• Eligibility	30 years continuous service
• Benefit	Accrued Benefit x early retirement factor payable immediately, subject to minimum guaranteed Benefit of \$1,215.00 prior to 62 and minimum guaranteed Benefit of \$415.00 after 62 and prior to 65; if over 56, the \$1,215.00 is increased to \$1,515.00 (effective 4/1/2000 this minimum is irrelevant).
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability²	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$14.00 x Continuous Service (maximum 25 years) less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service

¹ The Special 30- Year benefit is subject to a minimum guaranteed benefit of \$915.00 prior to age 62, if over age 56 the \$915.00 is increased to \$1,215.00. The minimum guaranteed benefit is \$415.00 after age 62 and prior to age 65.

² Also includes the Special 30-Year Benefit.

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage
Post retirement death	Reduction in Benefit required for J&S Coverage is removed in event of spouse's death after commencement date of pension with waiting period

Schedule SB, Part V — Summary of Plan Provisions

Barberton – hired prior to 3/03/2008

Effective date	July 20, 1950
Group Number	051
Status of the plan	Effective March 3, 2008, this Appendix is frozen to new entrants. Active participants that have less than 60 points (age + service) as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2011. Active participants that have greater than 60 points as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire if prior to March 3, 2008
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$50.00 x continuous service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service or Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced 2.4% for each year prior to 62 or for each Year of Service less than 37, whichever is less.
Special 30-year retirement	
• Eligibility	Age 55 plus 30 years continuous service
• Benefit	Accrued Benefit reduced 2.4% for each year prior to 62 or for each Year of Service less than 37, whichever is less, plus a temporary supplement of \$550.00 payable to 62.

Schedule SB, Part V — Summary of Plan Provisions

Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	15 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$13.00 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 55% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Oak Creek – hired prior to 10/22/2007

Effective date	October 21, 1950
Group Number	053
Status of the plan	Effective October 22, 2007, this Appendix is frozen to new entrants. This Appendix has ongoing benefit accruals until December 31, 2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire if prior to October 22, 2007
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$50.00 x continuous service
Normal retirement	
• Eligibility	Age 65

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Accrued Benefit payable immediately
Early retirement³	
• Eligibility	Age 60 plus 10 years continuous service or Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced 2.4% for each year prior to 65; no reduction if at least age 62 at time of retirement. Effective 2/1/2005 a temporary supplement of \$550.00 per month payable until age 62 for 55/85 retirements.
Special 25-year retirement⁴	
• Eligibility	Age 58 plus 25 years continuous service
• Benefit	Accrued Benefit reduced 3.6% for each year prior to 62.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$20.00 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage
Optional form conversion factors	Joint & Survivor conversion tables were changed from the 90 ± 5 table to the 95 ± 5 table for retirements after February 1, 2002.

³ Various early retirement windows effective December 1, 2007, October 1, 2008, October 1, 2009 and October 1, 2010.

⁴ Special 25-year pension reduction reduced to 3.6% per year effective February 1, 2005, QPSA & QJSA % increased to 60% effective February 1, 2005.

Schedule SB, Part V — Summary of Plan Provisions

Lake Charles – hired prior to 9/01/2006

Effective date	February 23, 1955
Group Number	058
Status of the plan	Effective September 1, 2006, this Appendix is frozen to new entrants. This Appendix has ongoing benefit accruals until December 31, 2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire if prior to September 1, 2006
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$51.00 x continuous service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service or Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced 2.4% for each year prior to 60 or for each Year of Service less than 35, whichever is less.
Special 30-year retirement	
• Eligibility	Age 55 plus 30 years continuous service
• Benefit	Accrued Benefit reduced 2.4% for each year prior to 60 or for each Year of Service less than 35, whichever is less, plus a temporary supplement of \$550.00 payable to 62.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$15.00 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage
Optional form conversion factor	The Joint & Survivor conversion table was changed from the 90% ± 5 table to the 95% ± 5 table effective May 1, 2000.

Greensburg

Effective date	December 30, 1954
Group Number	060
Status of the plan	The Appendix is frozen to new entrants and no longer has ongoing benefit accruals.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	A + B + C plus \$5.00 where: A = \$21.00 x Continuous Service (Maximum 18 Years) B = \$23.00 x Continuous Service (Between 19 and 28 Years) C = \$25.00 x Continuous Service (Over 28 Years)
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service or Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced for each year prior to 62. See Early Retirement Reduction Percentage Exhibit

Schedule SB, Part V — Summary of Plan Provisions

Special early retirement	
• Eligibility	Age 62 with 15 years continuous service
• Benefit	Accrued Benefit payable immediately plus temporary supplement equal to Accrued Benefit, payable to 65
Special 30-year retirement	
• Eligibility	30 years continuous service
• Benefit	Accrued Benefit x early retirement factor payable immediately, subject to minimum guaranteed Benefit of \$1,215.00 prior to 62 and minimum guaranteed Benefit of \$415.00 after 62 and prior to 65; if over 56, the \$1,215.00 is increased to \$1,515.00.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability⁵	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$14.00 x Continuous Service (maximum 25 years) less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage
Post retirement death	
	Reduction in Benefit required for J&S Coverage is removed in event of spouse's death after commencement date of pension with waiting period

Natrium – hired prior to 2/16/2006

Effective date	Restated plan: July 2, 1956
Group Number	064
Status of the plan	Effective July 16, 2006, this Appendix is frozen to new entrants. This Appendix has ongoing benefit accruals until December 31, 2020.
Significant events that occurred during the year	None
Definitions	

⁵ Also includes the Special 30 Year Benefit.

Schedule SB, Part V — Summary of Plan Provisions

• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire if prior to February 16, 2006
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$51.00 x continuous service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement⁶	
• Eligibility	Age 60 plus 10 years continuous service or Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced 2.4% for each year prior to 60 or for each Year of Service less than 35, whichever is less
Special 30-year retirement	
• Eligibility	Age 55 plus 30 years continuous service
• Benefit	Accrued Benefit reduced 2.4% for each year prior to 60 or for each Year of Service less than 35, whichever is less, plus a temporary supplement of \$550.00 payable to 62

⁶ Early retirement windows effective April 1, 2005 and March 1, 2007 will increase the temporary supplement to \$900.00.

Schedule SB, Part V — Summary of Plan Provisions

Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$17.50 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Natrium II – hired on or after 2/16/2006

Effective date	July 2, 1956
Group Number	064
Status of the plan	Effective August 19, 2010, this Appendix is frozen to new entrants. The Appendix has ongoing benefit accruals until December 31, 2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire if on or after February 16, 2006
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$33.00 x continuous service
Normal retirement	
• Eligibility	SSNRA
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Accrued Benefit reduced 2.4% for each year prior to SSNRA or for each Year of Service less than 35, whichever is less
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to SSNRA once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$10.00 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Springdale Hourly

Effective date	October 24, 1957
Group Number	067
Status of the plan	Effective June 30, 2008, this Appendix is frozen to new entrants. Active participants that have less than 60 points (age + service) as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2011. Active participants that have greater than 60 points as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire if prior to June 30, 2008
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$46.00 x continuous service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately

Schedule SB, Part V — Summary of Plan Provisions

Early retirement	
• Eligibility	<ul style="list-style-type: none"> Age 60 plus 10 years continuous service Age 55 plus years of service equals 85 Age 58 with 30 years continuous service
• Benefit	<ul style="list-style-type: none"> Accrued Benefit reduced for each year prior to 62 for 60 and 10 and 55/85 retirements prior to 11/1/2002. See Early Retirement Reduction Percentage Exhibit Effective 11/1/2002 reduction was changed to .002% per month under age 62 The greater of the Early Retirement Benefit calculated above and the accrued benefit as of 1/1/1988 payable immediately for 58 and 30 retirements
Special early retirement	
• Eligibility	Age 62 with 13 years continuous service
• Benefit	Accrued Benefit payable immediately plus temporary supplement equal to \$10.00 x Continuous Service payable to 65; Accrued Benefit recomputed at 65
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$16.00 x Continuous Service (maximum \$400.00) less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 55% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage
Post retirement death	Reduction in Benefit required for J&S Coverage is removed in event of spouse's death after commencement date of pension with waiting period

Kokomo

Effective date	August 1, 1959
Group Number	072
Status of the plan	The Appendix has no active employees remaining.

Schedule SB, Part V — Summary of Plan Provisions

Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$19.50 x continuous service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service
• Benefit	Accrued Benefit reduced 6.667% for each year prior to 62
Special early retirement	
• Eligibility	Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced 6.667% for each year prior to 62 plus temporary supplement equal to \$500.00 payable to 62
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$.50 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 50% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Schedule SB, Part V — Summary of Plan Provisions

Mt. Zion

Effective date	August 31, 1966
Group Number	073
Status of the plan	This Appendix is frozen to new entrants and no longer has employees earning ongoing benefit accruals.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	A + B + C plus \$5.00 where: A = \$25.00 x continuous service (maximum 18 years) B = \$27.00 x continuous service (between 19 and 28 years) C = \$29.00 x continuous service (over 28 years)
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced for each year prior to 62. See Early Retirement Reduction Percentage Exhibit
Special early retirement	
• Eligibility	Age 62 plus 15 years of continuous service
• Benefit	Accrued Benefit payable immediately plus temporary supplement payable to age 65 equal to the benefit calculated using rates of \$17/\$19/\$21 and service at 12/31/1999 plus service earned after 7/1/2002
Special 30 year retirement	
• Eligibility	30 years continuous service

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Accrued Benefit x early retirement factor payable immediately, subject to minimum guaranteed Benefit of \$1,215 prior to 62 and minimum guaranteed Benefit of \$415 after 62 and prior to 65; if over 56, the \$1,215 is increased to \$1,515. At age 62, benefit is recalculated using service at 12/31/1999 plus service earned after 7/1/2002
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability⁷	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$14.00 x Continuous Service (maximum \$350.00) less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage
Post retirement death	Reduction in Benefit required for J&S Coverage is removed in event of spouse's death after commencement date of pension with waiting period

East Point – hired prior to 12/01/2007

Effective date	October 1, 1964
Group Number	076
Status of the plan	Effective December 1, 2007, this Appendix is frozen to new entrants (employees hired on or after December 1, 2007 are eligible for DC benefits only). Effective October 3, 2011 Active participants that have less than 60 points (age + service) as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2011. Active participants that have greater than 60 points as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity

⁷ Also includes the Special 30-Year Benefit.

Schedule SB, Part V — Summary of Plan Provisions

• Continuous Service	From date of hire
• Plan eligibility	Date of hire if prior to December 1, 2007
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$36.50 x continuous service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 62 plus 10 years continuous service
• Benefit	Accrued Benefit reduced 6.667% for each year prior to 65.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	15 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$10.95 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 50% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Glass Clerical

Effective date	April 1, 1956
Group Number	078
Status of the plan	The union was decertified effective at the end of August 2002. Beginning January 1, 2003 these employees became covered in the RIP. The Appendix has no active employees remaining.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire

Schedule SB, Part V — Summary of Plan Provisions

• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	<p>A + B + C where:</p> <p>A = \$23.00 x Continuous Service (Maximum 18 Years)</p> <p>B = \$25.00 x Continuous Service (Between 19 and 28 Years)</p> <p>C = \$27.00 x Continuous Service (Over 28 Years)</p>
— Participants of the Glass Clerical Plan at the Ford City location	<p>A + B + C where:</p> <p>A = \$18.95 x Continuous Service (Maximum 18 Years)</p> <p>B = \$20.20 x Continuous Service (Between 19 and 28 Years)</p> <p>C = \$21.70 x Continuous Service (Over 28 Years)</p>
— Participants of the Glass Clerical Plan at the Crystal City location	<p>A + B + C where:</p> <p>A = \$20.50 x Continuous Service (Maximum 18 Years)</p> <p>B = \$22.50 x Continuous Service (Between 19 and 28 Years)</p> <p>C = \$24.50 x Continuous Service (Over 28 Years)</p>
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	<p>Age 62 plus 10 years continuous service</p> <p>Age 55 plus years of service equals 85</p>
• Benefit	<p>Accrued Benefit reduced for each year prior to 62 for 60 and 10 retirements</p> <p>See Exhibit A otherwise</p>
Special early retirement	
• Eligibility	Age 52 with 15 years of continuous service (as of 12/31/1996)
• Benefit	Accrued Benefit payable immediately plus temporary supplement payable to age 65 equal to the benefit calculated using levels of \$23/\$25/\$27 and service at 12/31/1996
Special 30-Year	
• Eligibility	30 years continuous service (if hired before 9/1/1996)
• Benefit	Accrued Benefit based on continuous service as of 12/31/1996 x early retirement factor payable immediately, subject to minimum guaranteed Benefit of \$1,215.00 prior to 62 and minimum guaranteed Benefit of \$415.00 after 62 and prior to 65; if over 56, the \$1,215.00 is increased to \$1,515.00. At age 62, benefit is recalculated using service at 12/31/1996.

Schedule SB, Part V — Summary of Plan Provisions

— Glass Clerical Plan at the Ford City location	The Special 30-Year Benefit is subject to a minimum guaranteed benefit of \$915.00 prior to age 62; if over age 56 the \$915.00 is increased to \$1,215.00. The minimum guaranteed benefit is \$415.00 after age 62 and prior to age 65.
— Glass Clerical Plan at the Crystal City location	The Special 30-Year Benefit is subject to a minimum guaranteed benefit of \$1,515.00. The minimum guaranteed benefit is \$415.00 after age 62 and prior to age 65
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability⁸	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$14.00 x Continuous Service (maximum 25 years) less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage
Post retirement death	
	Reduction in Benefit required for J&S Coverage is removed in event of spouse's death after commencement date of pension with waiting period

Fresno

Effective date	April 22, 1968
Group Number	081
Status of the plan	Effective September 29, 2011, this Appendix is frozen to new entrants. Active participants that have less than 60 points (age + service) as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2011. Active participants that have greater than 60 points as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month

⁸ Also includes the Special 30-Year Benefit.

Schedule SB, Part V — Summary of Plan Provisions

• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	A + B + C plus \$5.00 where: A = \$25.00 x Continuous Service (Maximum 18 Years) B = \$27.00 x Continuous Service (Between 19 and 28 Years) C = \$29.00 x Continuous Service (Over 28 Years)
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced for each year prior to 62. See Early Retirement Reduction Percentage Exhibit
Special early retirement	
• Eligibility	Age 62 with 15 years of continuous service
• Benefit	Accrued Benefit payable immediately plus temporary supplement payable to age 65 equal to the benefit using \$17/\$19/\$21 levels and service at retirement
Special 30-year retirement	
• Eligibility	30 years continuous service
• Benefit	Accrued Benefit x early retirement factor payable immediately, subject to minimum guaranteed Benefit of \$1,215.00 prior to 62 and minimum guaranteed Benefit of \$415.00 after 62 and prior to 65; if over 56, the \$1,215.00 is increased to \$1,515
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability⁹	
• Eligibility	10 years continuous service

⁹ Also includes the Special 30-Year Benefit.

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$14.00 x Continuous Service (maximum \$350.00) less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage
Post retirement death	Reduction in Benefit required for J&S Coverage is removed in event of spouse's death after commencement date of pension with waiting period

Delaware – hired prior to 2/25/2007

Effective date	February 3, 1969
Group Number	082
Status of the plan	Effective February 25, 2007, the Appendix is frozen to new entrants. The Appendix has ongoing benefit accruals until December 31, 2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire if prior to February 25, 2007
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$50.00 x Continuous Service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately

Schedule SB, Part V — Summary of Plan Provisions

Early retirement¹⁰	
• Eligibility	Age 60 plus 10 years continuous service Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced 2.4% for each year prior to 62. Effective 4/1/2001 a temporary supplement of \$550 per month payable until age 62 for 55/85 retirements.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.0% for each year prior to 65 once eligible for early (early for TVs only with 60 and 10).
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$21.00 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Delaware II – hired on or after 2/25/2007

Effective date	February 3, 1969
Group Number	082
Status of the plan	The Appendix has ongoing benefit accruals and new employees are eligible to participate once they satisfy the participation requirements until December 31, 2020.
Significant events that occurred during the year	None

¹⁰ Early retirement windows effective June 1, 2007, January 1, 2008, June 1, 2008 and April 1, 2010 will increase the temporary supplement to \$900.00.

Schedule SB, Part V — Summary of Plan Provisions

Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$35.00 x Continuous Service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced 2.4% for each year prior to 62. Effective 4/1/2001 a temporary supplement of \$550 per month payable until age 62 for 55/85 retirements.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.0% for each year prior to 65 once eligible for early (early for TVs only with 60 and 10).
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$15.00 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Schedule SB, Part V — Summary of Plan Provisions

Memphis C&S

Effective date	July 1, 1969
Group Number	083
Status of the plan	Spun off to PPG Auto Glass effective October 1, 2000. Decertified April 1, 2001, and became covered by Auto Glass Retirement Income Plan.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$13.00 x Continuous Service (maximum 35 years)
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service
• Benefit	Accrued Benefit reduced 7.2% for each year prior to 65.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 50% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Circleville – hired prior to 11/01/2004

Effective date	June 20, 1965
----------------	---------------

Schedule SB, Part V — Summary of Plan Provisions

Group Number	087
Status of the plan	Effective November 1, 2004, this Appendix is frozen to new entrants. Effective September 17, 2012, the Appendix has ongoing benefit accruals until December 31, 2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire if prior to November 1, 2004
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$50.50 x Continuous Service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced 2.4% for each year prior to 62. Effective 9/1/2001 a temporary supplement of \$550.00 per month payable until age 62 for 55/85 retirements.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus if not eligible for Social Security, a temporary supplement payable to age 65 equal to \$25.25 x Continuous Service less Disability payments

Schedule SB, Part V — Summary of Plan Provisions

Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit effective 7/1/2001 calculated as if participant retired early at first possible date and elected J&S Coverage
Optional form conversion factor	Joint & Survivor conversion tables were changed from the 90% $\pm$ 5 to the 95% $\pm$ 5 table for retirements on or after August 1, 1995.

Circleville II – hired on or after 11/01/2004

Effective date	June 20, 1965
Group Number	087
Status of the plan	Effective July 20, 2009, this Appendix is frozen to new entrants. Effective September 17, 2012, active participants that have less than 60 points (age + service) as of 12/31/2012 will not have ongoing benefit accruals after 12/31/2012. Active participants that have greater than 60 points as of 12/31/2012 will not have ongoing benefit accruals after 12/31/2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$33.00 x Continuous Service
Normal retirement	
• Eligibility	SSNRA
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service
• Benefit	Accrued Benefit reduced 2.4% for each year prior to SSNRA - 3.
Deferred vested	
• Eligibility	5 years continuous service

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus if not eligible for Social Security, a temporary supplement payable to age 65 equal to \$16.50 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit effective 7/1/2001 calculated as if participant retired early at first possible date and elected J&S Coverage

Roanoke C&S

Effective date	August 1, 1971
Group Number	088
Status of the plan	Union Contract expired on August 31, 1999. All accrued benefits under this appendix were frozen at that date. Benefit accruals for service after August 31, 1999 are earned under the Glass Voluntary appendix.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$13.00 x Continuous Service (maximum 35 years)

Schedule SB, Part V — Summary of Plan Provisions

Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service
• Benefit	Accrued Benefit reduced 7.2% for each year prior to 65.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 50% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Stockertown

Effective date	January 1, 1979
Group Number	091
Status of the plan	Facility sold effective September 30, 1994. All non-vested employees were vested regardless of service.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$18.00 x Continuous Service (maximum 35 years)
Normal retirement	
• Eligibility	Age 65

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 55 plus 10 years continuous service
• Benefit	Accrued Benefit reduced 5.00% for each year prior to 65.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 5.0% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	15 years continuous service
• Benefit	Accrued Benefit payable immediately
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 55% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Torrance

Effective date	November 1, 1987
Group Number	094
Status of the plan	The Torrance plant was shut down in early 2000.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$30.00 x Continuous Service (maximum 35 years)
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 62 plus 10 years continuous service

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Accrued Benefit unreduced
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to age 65 equal to \$12.00 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 50% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Schedule SB, Part V — Summary of Plan Provisions

Crystal City

Effective date	January 1, 1989
Group Number	095
Status of the plan	The Appendix has no active employees remaining.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	A + B + C where: A = \$20.50 x Continuous Service (maximum 18 years) B = \$22.50 x Continuous Service (maximum 19 and 28 years) C = \$24.50 x Continuous Service (over 28 years)
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service Age 55 plus years of service equals 85
• Benefit	Accrued Benefit reduced for each year prior to 62. See Exhibit A.
Special early retirement	
• Eligibility	62 plus 15 years continuous service
• Benefit	Accrued Benefit payable immediately plus temporary supplement equal to Accrued Benefit payable to 65
Special 30-year retirement	
• Eligibility	30 years continuous service
• Benefit	Accrued Benefit x early retirement factor payable immediately, subject to minimum guaranteed Benefit of \$1,515.00 prior to 62 and minimum guaranteed Benefit of \$415.00 after 62 and prior to 65
Deferred vested	
• Eligibility	5 years continuous service

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability¹¹	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to age 65 equal to \$14.00 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 60% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage
Post retirement death	Reduction in Benefit required for J&S Coverage is removed in event of spouse's death after commencement date of pension with waiting period

Louisville – hired before 10/08/2006

Effective date	January 1, 1990
Group Number	097
Status of the plan	Effective October 8, 2006, this Appendix is frozen to new entrants (employees hired on or after October 8, 2006 are eligible for DC benefits only). This Appendix has ongoing benefit accruals until December 31, 2020.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From later of date of hire or 01/01/1990
• Plan eligibility	Date of hire if prior to October 8, 2006
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$36.00 x Continuous Service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately

¹¹ Also includes the Special 30-year benefit.

Schedule SB, Part V — Summary of Plan Provisions

Early retirement	
• Eligibility	Age 62 plus 10 years continuous service
• Benefit	Accrued Benefit reduced 4.80% effective 11/1/2002 for each year prior to 65
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to age 65 equal to \$18.00 x Continuous Service less Disability payments
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 50% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Lansing

Effective date	January 25, 1999
Group Number	086
Status of the plan	Spun off to PPG Auto Glass effective October 1, 2000. Decertified February 1, 2001, and became covered by Auto Glass Retirement Income Plan.
Significant events that occurred during the year	None

Schedule SB, Part V — Summary of Plan Provisions

Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees
• Accrued Benefit	\$20.00 x Continuous Service (maximum 35 years)
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service
• Benefit	Accrued Benefit reduced 7.2% for each year prior to 65
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 50% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Schedule SB, Part V — Summary of Plan Provisions

Evert

Effective date	January 1, 1999
Group Number	098
Status of the plan	This Appendix is frozen to new entrants and no longer has ongoing benefit accruals.
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$26.00 x Continuous Service
Auto Glass Divestiture	Continuous service for purposes of benefit accruals was frozen effective September 30, 2008 due to the divestiture of the auto glass business.
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service
• Benefit	Accrued Benefit reduced 6.67% for each year prior to 65
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.67% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately plus a temporary supplement payment payable to 65 equal to \$4.00 x Continuous Service effective 1/01/06
Pre-retirement death	
• Eligibility	5 years continuous service

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Surviving Spouse receives 50% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage
-----------	---

Greensboro C&S

Effective date	February 15, 1973
Group Number	184
Status of the plan	Spun off to PPG Auto Glass effective October 1, 2000
Significant events that occurred during the year	None
Definitions	
• Type of Plan	Dollar per month
• Normal Form	Life annuity
• Continuous Service	From date of hire
• Plan eligibility	Date of hire
• Employee Contributions	None
• Class	Hourly employees covered by Bargaining Agreement
• Accrued Benefit	\$18.50 x Continuous Service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 plus 10 years continuous service
• Benefit	Accrued Benefit reduced 7.2% for each year prior to 65
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early.

Schedule SB, Part V — Summary of Plan Provisions

Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving Spouse receives 50% of Benefit calculated as if participant retired early at first possible date and elected J&S Coverage

Schedule SB, Part V — Summary of Plan Provisions

Hourly Pension Plans Benefit Level Summary

Number	Appendix Name	Benefit Level in effect on Valuation Date	Benefit Level in Year of Contract*		
			1	2	3
051	Barberton	50.00	50.00	50.00	50.00
053	Oak Creek	50.00	50.00	50.00	50.00
058	Lake Charles	51.00	51.00	51.00	51.00
064	Natrium	51.00	48.00	48.00	51.00
064	Natrium II	33.00	33.00	33.00	33.00
067	Springdale Hourly	46.00	46.00	46.00	46.00
072	Kokomo	19.50	17.50	18.50	19.50
076	East Point	36.50	36.50	36.50	36.50
082	Delaware	50.00	50.00	50.00	50.00
082	Delaware II	35.00	35.00	35.00	35.00
083	Memphis C&S	13.00	13.00	13.00	13.00
087	Circleville	50.50	50.50	50.50	50.50
087	Circleville II	33.00	33.00	33.00	33.00
088	Roanoke C&S	13.00	12.00	12.00	13.00
091	Stockertown	18.00	16.00	17.00	18.00
094	Torrance	30.00	30.00	30.00	30.00
098	Ewart	26.00	26.00	26.00	26.00
086	Lansing	20.00	20.00	20.00	20.00
184	Greensboro C&S	20.00	20.00	20.50	21.00

* Minimum required contribution has been determined based on funding target and normal cost recognizing the highest benefit committed to as of January 1, 2018.

Schedule SB, Part V — Summary of Plan Provisions

Benefit Level Depends on Service

Benefit Level Depends on Service

Same Benefit Level for Following Appendices

Number	Appendix Name	Benefit Level in effect on Valuation Date		Benefit Level in Year of Contract*			
				1	2	3	
050	Glass CIO (Ford City)	\$	18.95	\$	18.95	\$	18.95
			20.20		20.20		20.20
			21.70		21.70		21.70
050	Glass CIO** (except Ford City)		26.00		25.00		25.00
			28.00		27.00		27.00
			30.00		29.00		29.00
060	Greensburg		21.00		21.00		21.00
			23.00		23.00		23.00
			25.00		25.00		25.00
073	Mt. Zion		25.00		25.00		25.00
			27.00		27.00		27.00
			29.00		29.00		29.00
078	Glass Clerical (Ford City)		18.95		18.95		18.95
			20.20		20.20		20.20
			21.70		21.70		21.70
078	Glass Clerical (Creighton)		23.00		23.00		23.00
			25.00		25.00		25.00
			27.00		27.00		27.00
078	Glass Clerical (Crystal City)		20.50		20.50		N/A
			22.50		22.50		N/A
			24.50		24.50		N/A
081	Fresno		25.00		25.00		25.00
			27.00		27.00		27.00
			29.00		29.00		29.00

Schedule SB, Part V — Summary of Plan Provisions

Same Benefit Level for Following Appendices						
Number	Appendix Name	Benefit Level in effect on Valuation Date	Benefit Level in Year of Contract*			
			1	2	3	
095	Crystal City	20.50	20.50	N/A	N/A	
		22.50	22.50	N/A	N/A	
		24.50	24.50	N/A	N/A	
097	Louisville	36.00	36.00	36.00	36.00	

* Minimum required contribution has been determined based on funding target and normal cost recognizing the highest benefit committed to as of January 1, 2018.

** Creighton goes to \$26/\$28/\$30 in 4th year of contract.

The following appendices have Special 30-year retirement minimum guaranteed monthly benefits, payable to age 62 as follows:

Number	Appendix Name	Effective Date	Guaranteed Monthly Benefits		
			Age < 56	Age > 56	
050	Glass CIO (except Ford City*)	Current	\$ 1,215	\$ 1,515	
060	Greensburg (Age 56 requirement waived due to plant closure)	Current	1,215	1,515	
073	Mt. Zion	Current	1,215	1,515	
078	Glass Clerical (Creighton only)	Current	1,215	1,515	
078	Glass Clerical (Crystal City)(Age 56 waived since Plant shutdown)	Current	1,515	1,515	
081	Fresno	Current	1,215	1,515	
095	Crystal City (Age 56 requirement not effective since plant shutdown)	Current	1,515	1,515	

* For Ford City Age 56 requirement waived due to plant closure.

Schedule SB, Part V — Summary of Plan Provisions

Early Retirement Reduction Percentages

Greensburg, Mt. Zion, Glass Clerical, Fresno, Glass CIO, Springdale Hourly and Crystal City

Age When Pension Commences	Percentage
55	57.9%
56	63.5
57	69.4
58	75.2
59	80.8
60	86.7
61	93.3
62 and over	100.0

Schedule SB, Part V — Summary of Plan Provisions

Salaried Plan

Effective date	December 24, 1940
Group Number	039
Status of the plan	Effective January 1, 2006, this appendix is frozen to new entrants. Active participants that have less than 60 points (age + service) as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2011. Active participants that have greater than 60 points as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2020.
Significant events that occurred during the year	None
Definitions	
• Type of plan	Five Year Average Earnings (FAE)
• Normal form	Life Annuity
• Plan eligibility	Date of Hire
• Credited service	From Date of Hire
• Continuous service	From Date of Hire
• Pension earnings	Monthly Base Salary
• SSNRA	Social Security Normal Retirement Age
• Employee contributions	None
• Class	Salaried Employees
• Accrued benefit	<p>Greater of:</p> <p><u>Regular Formula</u></p> <p>(.855% FAE (basic benefit) + .585% FAE in excess of Social Security Covered Compensation (excess benefit)) x Credited Service (maximum 35 years)</p> <p>Or</p> <p><u>Alternate Formula</u></p> <p>\$36.00 x Continuous Service</p> <p>Or</p> <p>The Frozen Accrued Benefit as of 12/31/1988</p>

Schedule SB, Part V — Summary of Plan Provisions

<p>— April 1, 2000 Change in Plan Provisions</p>	<p>The regular formula was changed from $(.950\% \text{ FAE} + .650\% \text{ FAE in excess of Social Security Covered Compensation}) \times \text{Credited Service (maximum 35 years)}$ to $(.855\% \text{ FAE} + .585\% \text{ FAE in excess of Social Security Covered Compensation}) \times \text{Credited Service (maximum 35 years)}$</p> <p>The early retirement reduction factors were changed from the rates described in Exhibit A to:</p> <ul style="list-style-type: none"> • Regular formula – 3% per year from 4 years prior to Social Security Normal Retirement Age • Alternate formula – 5% per year from 4 years prior to Social Security Normal Retirement Age <p>However, at retirement, all participants hired on or before April 1, 2000 will have a minimum benefit equal to (a) + (b) where:</p> <ol style="list-style-type: none"> a) the benefit under the old regular formula $(.950\%/.650\%)$ using final average earnings at retirement and service at April 1, 2000. b) the benefit under the new regular formula $(.855\%/.585\%)$ using final average earnings at retirement and service since April 1, 2000. <p>Benefits earned under (a) are reduced from early retirement by the factors in Exhibit A and benefits earned under (b) are reduced from early retirement by 3% for each year retirement occurs prior to four years before Social Security Age.</p>
<ul style="list-style-type: none"> • Social Security Covered Compensation 	<p>Based on Social Security Act in effect at date of computation, the average monthly earnings subject to Social Security taxes assuming that the participant, for each year through and including the year prior to SSNRA, earns an amount at least equal to the Social Security taxable wage base for each year.</p>
<ul style="list-style-type: none"> • Special Minimum Death Benefit 	<p>For any participant who made contributions under the prior plan, a minimum lump sum death benefit equal to contributions plus credited interest (to earlier of date of death or benefit commencement date) less benefits paid to participant and joint annuitant, if any.</p>
<ul style="list-style-type: none"> • Special Premium for Pilots 	<p>For any pilot who retires on or after his 60th birthday, benefits will be calculated using "Pilot's Credited Service" (Credited Service plus two years) and "Pilot's Final Average Salary" (Final Average Salary calculated assuming salary at termination date continued for two years). Additionally, a temporary monthly supplement of \$400 will be paid from benefit commencement date to the earlier of date of death or attainment of age 62.</p>

Schedule SB, Part V — Summary of Plan Provisions

• Auto Glass Divestiture	In accordance with the terms of the divestiture of the auto glass business, affected salaried employees with 80 points at date of sale receive salary increases of 1.50% per year during continued employment with PGW.
Normal retirement	
• Eligibility	SSNRA
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	SSNRA - 10
• Benefit	Benefits under the regular formula are reduced 3% per year from SSNRA-4. Benefits under the alternate formula are reduced 5% per year from SSNRA-4.
Special early retirement	
• Eligibility	Age plus service equals 80 as of 4/1/2000
• Benefit	Accrued Benefit reduced each year prior to SSNRA-3 according to Exhibit A (for benefits earned prior to 4/1/2000)
Supplemental early retirement	
• Eligibility	For terminations prior to April 1, 2000, a participant <ul style="list-style-type: none"> • Who has attained age 48 and whose age and service total 80 or more and • Whose employment is terminated due to facility shutdown or business consolidation.
• Benefit	Equal to the social security early retirement age benefit less the early retirement benefit. The participant will also receive \$400 per month until three years before social security normal retirement age. Subject to a cap equal to 1.5 times compensation.
Late retirement	
• Eligibility	Beyond SSNRA
• Benefit	Accrued Benefit at actual retirement date
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to SSNRA
Disability	No special provision other than continuation of service accrual
Pre-retirement death	
• Eligibility	5 years continuous service

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	Surviving spouse receives 50% of Benefit calculated as if the participant retired early at first possible date and elected J&S coverage
-----------	---

Cleveland

Effective date	April 1, 1957
Group Number	031
Status of the plan	Effective January 1, 2006, this Appendix is frozen to new entrants. Active participants that have less than 60 points (age + service) as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2011. Active participants that have greater than 60 points as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2020.
Significant events that occurred during the year	None
Definitions	
• Type of plan	Dollar Per Month
• Normal form	Life Annuity
• Continuous service	From Date of Hire
• Plan eligibility	Date of Hire
• Pension earnings	N/A
• Employee contributions	None
• Class	Hourly Employees
• Accrued benefit	\$49.00 x Continuous Service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately.
Early retirement	
• Eligibility	Age 55 with 10 years continuous service
• Benefit	Accrued Benefit reduced 6.0% for each year prior to 62.
Supplemental early retirement benefits	
• Eligibility	A participant <ul style="list-style-type: none"> • Who has attained age 48 and whose age and service total 80 or more and • Whose employment is terminated due to facility shutdown or business consolidation

Schedule SB, Part V — Summary of Plan Provisions

• Benefit	<p>A supplemental benefit, equal to the accrued benefit less the early retirement benefit. The participant will also receive \$400 per month until age 62.</p> <p>The supplemental early retirement benefit is subject to a cap equal to 1.5 times annual wages divided by the number of months the participant is under age 62 as of his supplemental early retirement date.</p>
Early Retirement Incentive Program	In March of 2002, active hourly employees at Cleveland were offered an early retirement window. Nine active employees elected to retire under these window provisions which enhanced benefits.
New Early Retirement Window	
• Eligibility	Effective December 1, 2007, February 1, 2009, and October 1, 2012 a defined list of participants were offered an early retirement window and are entitled to a new early retirement window benefit.
• Benefit	<ul style="list-style-type: none"> • No early retirement reduction factor upon retirement, and • Temporary supplement of \$600 per month payable until age 62, but not less than two years for December 1, 2007 window. • Temporary supplement of \$1,200 per month payable until age 62, but not less than two years for February 1, 2009 window.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$24.50 x Continuous Service less Disability payments.
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving spouse receives 55% of Benefit calculated as if the participant retired early at first possible date and elected J&S coverage.

Schedule SB, Part V — Summary of Plan Provisions

Shelby/Lexington/Chester

Effective date	May 1, 1967
Group Number	032
Status of the plan	Effective February 1, 2006, this Appendix is frozen to new entrants. Active participants that have less than 60 points (age + service) as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2011. Active participants that have greater than 60 points as of 12/31/2011 will not have ongoing benefit accruals after 12/31/2020.
Significant events that occurred during the year	None
Definitions	
• Type of plan	Dollar Per Month
• Normal form	Life Annuity
• Continuous service	From Date of Hire
• Plan eligibility	Date of Hire
• Pension earnings	N/A
• Employee contributions	None
• Class	Hourly Employees
• Accrued benefit	\$36.00 x Continuous Service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately.
Early retirement	
• Eligibility	Age 55 with 10 years continuous service
• Benefit	Accrued Benefit reduced 5.0% for each year prior to Social Security Normal Retirement Age - 4.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early.

Schedule SB, Part V — Summary of Plan Provisions

Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$14.00 x Continuous Service less Disability payments.
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving spouse receives 50% of Benefit calculated as if the participant retired early at first possible date and elected J&S coverage.
Optional form conversion factors	Joint & Survivor conversion tables were changed from the 90% $\pm$ 5 to the 95% $\pm$ 5 table for retirements on and after July 1, 1998.

Crestline

Effective date	April 1, 1966
Group Number	033
Status of the plan	This Appendix is frozen to new entrants and no longer has ongoing benefit accruals.
Significant events that occurred during the year	None
Definitions	
• Type of plan	Dollar Per Month
• Normal form	Life Annuity
• Continuous service	From Date of Hire
• Plan eligibility	Date of Hire
• Pension earnings	N/A
• Employee contributions	None
• Class	Hourly Employees covered by Bargaining Agreement
• Accrued benefit	A + B where: A = \$28.00 x continuous service (maximum 29 years) B = \$31.00 x continuous service (over 29 years)
• Auto Glass Divestiture	As part of the auto glass divestiture, continuous service was frozen as of the sale date of 9/30/2008. Participants continue to earn eligibility service during continued employment with PGW. Special 30-year early retirement benefits are prorated between PPG and PGW.
Normal retirement	

Schedule SB, Part V — Summary of Plan Provisions

• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately.
Early retirement	
• Eligibility	Age 60 with 10 years continuous service Age 55 or Age + Service = 85
• Benefit	Accrued Benefit reduced for each year prior to 62. See Early Reduction Factor Percentages. Exhibit
Special early retirement	
• Eligibility	Age 62 with 15 years continuous service
• Benefit	Accrued Benefit payable immediately plus temporary supplement payable to 65 that provides a total benefit of twice the accrued benefit as if \$22.00/\$25.00 benefit levels were used.
Special 30 year retirement	
• Eligibility	Age 58 with 30 years continuous service
• Benefit	Accrued Benefit x early retirement factor payable immediately, subject to minimum guaranteed Benefit of \$825.00 prior to 62 and minimum guaranteed Benefit of \$415.00 after 62 and prior to 65.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability¹²	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$14.00 x Continuous Service (maximum \$350.00) less Disability payments.
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving spouse receives 60% of Benefit calculated as if the participant retired early at first possible date and elected J&S coverage.
Post retirement death	Reduction in Benefit required for J&S Coverage is removed in event of spouse's death after commencement date of pension with waiting period.

¹² Also includes the Special 30-Year Benefit.

Schedule SB, Part V — Summary of Plan Provisions

Tipton

Effective date	April 1, 1966
Group Number	034
Status of the plan	This Appendix is frozen to new entrants and no longer has ongoing benefit accruals.
Significant events that occurred during the year	None
Definitions	
• Type of plan	Dollar Per Month
• Normal form	Life Annuity
• Continuous service	From Date of Hire
• Plan eligibility	Date of Hire
• Pension earnings	N/A
• Employee contributions	None
• Class	Hourly Employees covered by Bargaining Agreement
• Accrued benefit	A + B where: A = \$28.00 x continuous service (maximum 29 years) B = \$31.00 x continuous service (over 29 years)
• Auto Glass Divestiture	As part of the auto glass divestiture, continuous service was frozen as of the sale date of 9/30/2008. Participants continue to earn eligibility service during continued employment with PGW. Special 30-year early retirement benefits are prorated between PPG and PGW.
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately.
Early retirement	
• Eligibility	Age 60 with 10 years continuous service Age 55 or Age + Service = 85
• Benefit	Accrued Benefit reduced for each year prior to 62. See Early Reduction Factor Percentages. Exhibit
Special early retirement	
• Eligibility	Age 62 with 15 years continuous service
• Benefit	Accrued Benefit payable immediately plus temporary supplement payable to 65 that provides a total benefit of twice the accrued benefit as if \$22.00/\$25.00 benefit levels were used.
Special 30 year retirement	

Schedule SB, Part V — Summary of Plan Provisions

• Eligibility	Age 58 with 30 years continuous service
• Benefit	Accrued Benefit x early retirement factor payable immediately, subject to minimum guaranteed Benefit of \$825.00 prior to 62 and minimum guaranteed Benefit of \$415.00 after 62 and prior to 65.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% for each year prior to 65 once eligible for early.
Disability¹³	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$14.00 x Continuous Service (maximum \$350.00) less Disability payments.
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving spouse receives 60% of Benefit calculated as if the participant retired early at first possible date and elected J&S coverage.
Post retirement death	
	Reduction in Benefit required for J&S Coverage is removed in event of spouse's death after commencement date of pension with waiting period.

In early 1998, employees at Tipton were offered a voluntary limited program of severance. Any employee who applied for the limited program of severance who was eligible for a retirement benefit under the pension plan on the date of severance, was eligible for a monthly special pension benefit. The monthly special pension benefit was an amount equal to the accrued pension benefit the employee has earned under the pension plan provisions at the date of severance. The monthly special pension benefit is payable through the end of the month the employee becomes 62 years of age. The special pension benefit payable to an employee under this program is capped at one and one-half times (1-1/2) the severance benefit.

Employees who elected to participate in the voluntary limited program of severance and who were eligible to receive the special pension benefit shall be eligible to receive the special early retirement benefit upon attainment of age 62. The special early retirement benefit is payable from age 62 to age 65 under the provisions of the pension plan. At age 65, the pension benefit will be adjusted to normal rates.

¹³ Also includes the Special 30-Year Benefit.

Schedule SB, Part V — Summary of Plan Provisions

Glass Voluntary

Effective date	January 1, 1969
Group Number	036
Status of the plan	Spun off to PPG Auto Glass effective October 1, 2000.
Significant events that occurred during the year	None
Definitions	
• Type of plan	Dollar Per Month
• Normal form	Life Annuity
• Plan eligibility	Date of Hire
• Pension earnings	N/A
• Employee contributions	None
• Class	Hourly Employees
• Accrued benefit	\$20.00 x continuous service (maximum 35 years)
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit but not less than \$150.00 per month payable immediately.

Schedule SB, Part V — Summary of Plan Provisions

Early retirement	
• Eligibility	Age 60 with 10 years continuous service, or Age 55 or Age + Service = 85
• Benefit	Accrued Benefit reduced 7.2% for each year prior to 65 for Age 60 and 10 eligibility. For Age 55 or Age + Service = 85, unreduced accrued benefit for retirements within 3 years of SSNRA. For retirements more than 3 years prior to SSNRA, accrued benefit reduced 6.0% for each year prior to 3 years before SSNRA.
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early.
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately less Disability payments.
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving spouse receives 50% of Benefit calculated as if the participant retired early at first possible date and elected J&S coverage.
Optional form conversion factors	Joint & Survivor conversion tables were changed from the 90% to the 95% table for retirements on and after January 1, 1999.

Schedule SB, Part V — Summary of Plan Provisions

Baltimore

Effective date	October 22, 1954
Group Number	056
Status of the plan	Closed to new entrants and no active employees remain.
Significant events that occurred during the year	None
Definitions	
• Type of plan	Dollar Per Month
• Normal form	Life Annuity
• Continuous service	From Date of Hire
• Plan eligibility	Date of Hire
• Pension earnings	N/A
• Employee contributions	None
• Class	Hourly Employees covered by Bargaining Agreement
• Accrued benefit	\$12.50 x continuous service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 62 with 10 years continuous service
• Benefit	Accrued Benefit payable immediately
Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 7.2% for each year prior to 65 once eligible for early
Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$6.25 x Continuous Service less Disability payments

Schedule SB, Part V — Summary of Plan Provisions

Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving spouse receives 50% of Benefit calculated as if the participant retired early at first possible date and elected J&S coverage

Lincoln

Effective date	November 15, 1958
Group Number	071
Status of the plan	Closed to new entrants and no active employees remain.
Significant events that occurred during the year	None
Definitions	
• Type of plan	Dollar Per Month
• Normal form	Life Annuity
• Continuous service	From Date of Hire
• Plan eligibility	Date of Hire
• Pension earnings	N/A
• Employee contributions	None
• Class	Hourly Employees covered by Bargaining Agreement
• Accrued benefit	\$19.75 x continuous service
Normal retirement	
• Eligibility	Age 65
• Benefit	Accrued Benefit payable immediately
Early retirement	
• Eligibility	Age 60 with 10 years continuous service
• Benefit	Accrued Benefit reduced 6.667% for each year prior to 62.
Special early retirement	
• Eligibility	Age 55 or Age + Service = 85
• Benefit	Accrued Benefit reduced 6.667% for each year prior to 62 plus temporary supplement equal to \$300.00 payable to 62

Deferred vested	
• Eligibility	5 years continuous service
• Benefit	Accrued Benefit deferred to 65 or reduced 6.667% each year prior to 65 once eligible for early.

Schedule SB, Part V — Summary of Plan Provisions

Disability	
• Eligibility	10 years continuous service
• Benefit	Accrued Benefit payable immediately, plus, if not eligible for Social Security, a temporary supplement payable to 65 equal to \$.50x Continuous Service less Disability payments.
Pre-retirement death	
• Eligibility	5 years continuous service
• Benefit	Surviving spouse receives 50% of Benefit calculated as if the participant retired early at first possible date and elected J&S coverage.

Schedule SB, Part V — Summary of Plan Provisions

Hourly Pension Plans *Benefit Level Summary*

Number	Appendix Name	Benefit Level in effect on Valuation Date	Benefit Level in Year of Contract*		
			1	2	3
031	Cleveland	49.00	49.00	49.00	49.00
032	Shelby/Lexington/Chester	36.00	36.00	36.00	36.00
036	Glass Voluntary	20.00	20.00	20.00	20.00
056	Baltimore	12.50	12.00	12.50	12.50
071	Lincoln	19.75	17.75	18.75	19.75

Benefit Level Depends on Service

Same Benefit Level for Following Two Appendices					
033	Crestline	28.00	28.00	28.00	28.00
		31.00	31.00	31.00	31.00
034	Tipton	28.00	28.00	28.00	28.00
		31.00	31.00	31.00	31.00

Funding target liability for all plans has been determined recognizing the highest benefit levels in effect as of January 1, 2018.

Schedule SB, Part V — Summary of Plan Provisions

Early Retirement Reduction Percentages

Retirement Income Plan - Appendix 039

Years Prior to SSNRA When Pension Commences	Percentage for Retirement Without 80 Points	Percentage for Retirements With 80 Points Applied To Basic Benefit	Percentage for Retirements With 80 Points Applied To Excess Benefit
10	44.2%	58.0%	50.0%
9	47.5	64.0	53.3
8	51.2	70.0	56.7
7	55.3	76.0	60.0
6	59.8	82.0	63.3
5	64.8	88.0	66.7
4	70.4	94.0	73.3
3	76.6	100.0	80.0
2	83.5	100.0	86.7
1	91.2	100.0	93.3
0	100.0	100.0	100.0

Schedule SB, Part V — Summary of Plan Provisions

To Be Used on Frozen Accrued Benefit

Age When Pension Commences	Percentage for Retirement Without 80 Points	Percentage for Retirements With 80 Points
55	44.2%	58.0%
56	47.5	64.0
57	51.2	70.0
58	55.3	76.0
59	59.8	82.0
60	64.8	88.0
61	70.4	94.0
62	76.6	100.0
63	83.5	100.0
64	91.2	100.0
65 and over	100.0	100.0

Crestline and Tipton

Age When Pension Commences	Percentage
55	57.9%
56	63.5
57	69.4
58	75.2
59	80.8
60	86.7
61	93.3
62 and over	100.0

Maximum annual compensation

Compensation for any 12-month period used to determine accrued benefits may not exceed the limits in IRC Section 401(a)(17) for the calendar year in which the 12-month period begins. This limit is indexed annually. For 2018 the limit is \$275,000.

Maximum annual benefits

Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2018, the limit is \$220,000.

PPG Industries Inc. Retirement Plan F
EIN: 25-0730780
Plan: 097

Schedule of Assets Held at End of Year
Schedule H, Line 4i
December 31, 2018

Identity of Issuer	Description of Investment	Cost	Current Value
* PPG Industries, Inc.	PPG Pension Master Trust Unit	<u>\$ 592,872,878</u>	<u>\$ 592,872,878</u>

* Party in Interest

Schedule SB, Line 7 and Line 8 — Explanation of Discrepancy in Prior Year Funding Standard Carryover Balance or Prefunding Balance

PPG Industries, Inc., Retirement Plan B merged with PPG Industries, Inc., Retirement Plan F effective December 31, 2017. The table below shows the carryover balance for items 7 – 13 for each plan separately, as well as the total end of year carryover balance for the plan after the merge. Note these plans do not have a prefunding balance, so those columns are not shown.

In addition, a \$10,000,000 voluntary waiver of Retirement Plan F carryover balance was made on December 22, 2017 for the 2017 plan year but was not reported on the prior year Schedule SB. Retirement Plan F's Line 7 is \$10,000,000 less than the prior year's Line 13.

Effective December 31, 2017 certain inactive participants were spun out of PPG Industries, Inc. Retirement Plan C (EIN: 25-0730780 PN: 094) and merged into PPG Industries, Inc. Retirement Plan F. A portion of the carryover balance was required to be transferred. This amount is \$7,635,180 and is shown as a negative number in Line 12.

Carryover balances were calculated for both plans from the prior valuation date to the merger date using each plan's specific cashflows and return calculation. The carryover balance for the disappearing plan is added to the carryover balance for the surviving plan at the date of the merger. Finally, the carryover balance at the valuation date for the surviving plan is calculated from the date of the merger using the post-merger cashflows and return calculation. The prior year's actual return is derived by dividing the interest amount by the carryover balance at the beginning of the prior year

Schedule SB Item	Plan B EIN: 25-0730780 PN: 091	Plan F EIN: 25-0730780 PN: 097	Total
7	\$5,072,684	\$95,054,458	
8	\$4,451,550	\$3,300,000	
9	\$621,134	\$91,754,458	
(actual return)	14.22%	12.31%	
10	\$88,325	\$11,294,974	
11			
12	\$0	(\$7,635,180)	
13	\$709,459	\$110,684,612	\$111,394,071

Schedule SB, Line 32 – Schedule of Amortization Bases

The shortfall amortization charge is the sum of the shortfall base amortization for each plan year covered under PPA. Although a shortfall base can be negative, the combined shortfall amortization charge cannot be negative.

Shortfall bases				
Year established		Outstanding balance	Years remaining	Installment
2017	\$	9,846,839	6	\$ 1,823,097
Total	\$	9,846,839		\$ 1,823,097