

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 <div style="text-align: center; font-size: 1.5em; font-weight: bold;">2018</div> This Form is Open to Public Inspection
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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>GRAFTECH INTERNATIONAL HOLDINGS INC. RETIREMENT PLAN</u>	1b Three-digit plan number (PN) ▶	<u>001</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>GRAFTECH INTERNATIONAL HOLDINGS INC</u> <u>HUMAN RESOURCE DEPARTMENT</u> <u>982 KEYNOTE CIRCLE</u> <u>BROOKLYN HEIGHTS, OH 44131</u>	1c Effective date of plan <u>02/25/1991</u>	2b Employer Identification Number (EIN) <u>06-1249029</u>	2c Plan Sponsor's telephone number <u>216-676-2002</u>
2d Business code (see instructions) <u>335900</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.	10/11/2019	DENNIS ROBINSON
SIGN HERE	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	5 1593
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	<div style="background-color: #cccccc; height: 20px; width: 100%;"></div> 6a(1) 22 6a(2) 19 6b 985 6c 365 6d 1369 6e 200 6f 1569 6g 6h 0
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	7

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

1A 1I

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
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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)** ☐ 0 **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
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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>GRAFTECH INTERNATIONAL HOLDINGS INC. RETIREMENT PLAN</u>	B Three-digit plan number (PN) ▶ <u>001</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>GRAFTECH INTERNATIONAL HOLDINGS INC</u>	D Employer Identification Number (EIN) <u>06-1249029</u>

E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☒ More than 500
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Part I	Basic Information
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1 Enter the valuation date: Month <u>01</u> Day <u>01</u> Year <u>2018</u>			
2 Assets:			
a Market value.....	2a	<u>114114358</u>	
b Actuarial value	2b	<u>108036437</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>1183</u>	<u>90348156</u>	<u>90348156</u>
b For terminated vested participants	<u>388</u>	<u>14790748</u>	<u>14790748</u>
c For active participants	<u>22</u>	<u>2841597</u>	<u>2851025</u>
d Total	<u>1593</u>	<u>107980501</u>	<u>107989929</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>5.54 %</u>	
6 Target normal cost	6	<u>1021000</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>09/24/2019</u>		
<u>KARTHIK BALAJI, FSA, EA</u>	Date		
Type or print name of actuary	<u>17-07905</u>		
<u>AON CONSULTING, INC.</u>	Most recent enrollment number		
Firm name	<u>312-381-1000</u>		
<u>200 E. RANDOLPH, 14TH FLOOR CHICAGO, IL 60601</u>	Telephone number (including area code)		
Address of the firm			

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

Part II Beginning of Year Carryover and Prefunding Balances

	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	0
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9 Amount remaining (line 7 minus line 8)	0	0
10 Interest on line 9 using prior year's actual return of <u>12.58</u> %	0	0
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year)		4703861
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>5.75</u> %		270472
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
c Total available at beginning of current plan year to add to prefunding balance		4974333
d Portion of (c) to be added to prefunding balance		0
12 Other reductions in balances due to elections or deemed elections	0	0
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	0

Part III Funding Percentages

14 Funding target attainment percentage	14	100.04%
15 Adjusted funding target attainment percentage	15	100.04%
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	95.25%
17 If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls**18** Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
04/13/2018	253800	0			
07/13/2018	253800	0			
10/15/2018	253800	0			
01/15/2019	253800	0			
Totals ▶			18(b)	1015200	18(c) 0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a Contributions allocated toward unpaid minimum required contributions from prior years	19a	0
b Contributions made to avoid restrictions adjusted to valuation date	19b	0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	979915

20 Quarterly contributions and liquidity shortfalls:

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

Liquidity shortfall as of end of quarter of this plan year			
(1) 1st	(2) 2nd	(3) 3rd	(4) 4th
0	0	0	0

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

21 Discount rate:				
a Segment rates:	1st segment: 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 62
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	1021000	
b Excess assets, if applicable, but not greater than line 31a	31b	46508	
32 Amortization installments:	Outstanding Balance		Installment
a Net shortfall amortization installment	0	0	
b Waiver amortization installment	0	0	
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	34	974492	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	0	0
36 Additional cash requirement (line 34 minus line 35)	36	974492	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	37	979915	
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a	5423	
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0	
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39	0	
40 Unpaid minimum required contributions for all years	40	0	

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:	
a Schedule elected	☐ 2 plus 7 years ☐ 15 years
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011

<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 GRAFTECH INTERNATIONAL HOLDINGS INC. RETIREMENT PLAN	B Three-digit plan number (PN) ▶	001
C Plan sponsor's name as shown on line 2a of Form 5500 GRAFTECH INTERNATIONAL HOLDINGS INC	D Employer Identification Number (EIN) 06-1249029	

Part I	Service Provider Information (see instructions)
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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
AON HEWITT GROUP TRUST
27-2436452

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

AON CONSULTING

22-2232264

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
11 50	NONE	348019	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 ☐

(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 ☐

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)

(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 ☐

(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 ☐

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

A Name of plan <u>GRAFTECH INTERNATIONAL HOLDINGS INC. RETIREMENT PLAN</u>	B Three-digit plan number (PN)	<u>001</u>
C Plan or DFE sponsor's name as shown on line 2a of Form 5500 <u>GRAFTECH INTERNATIONAL HOLDINGS INC</u>	D Employer Identification Number (EIN) <u>06-1249029</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)
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a Name of MTIA, CCT, PSA, or 103-12 IE: <u>AHGT US LARGE CAP ACTIVE EQ</u>		
b Name of sponsor of entity listed in (a): <u>AON HEWITT GROUP TRUST</u>		
c EIN-PN <u>27-2436452-001</u>	d Entity code <u>C</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>0</u>
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>AHGT SMALL & MID CAP ACTIVE EQ</u>		
b Name of sponsor of entity listed in (a): <u>AON HEWITT GROUP TRUST</u>		
c EIN-PN <u>27-2436452-002</u>	d Entity code <u>C</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>1353776</u>
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>AHGT NON US EQUITY ACTIVE EQ</u>		
b Name of sponsor of entity listed in (a): <u>AON HEWITT GROUP TRUST</u>		
c EIN-PN <u>27-2436452-003</u>	d Entity code <u>C</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>5125128</u>
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>AHGT HIGH YIELD BOND</u>		
b Name of sponsor of entity listed in (a): <u>AON HEWITT GROUP TRUST</u>		
c EIN-PN <u>27-2436452-004</u>	d Entity code <u>C</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>3845964</u>
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>AGT US LONG FIXED ACTIVE CR</u>		
b Name of sponsor of entity listed in (a): <u>AON HEWITT GROUP TRUST</u>		
c EIN-PN <u>27-2436452-013</u>	d Entity code <u>C</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>53080751</u>
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>AGT US LARGE CAP PASSIVE EQ</u>		
b Name of sponsor of entity listed in (a): <u>AON HEWITT GROUP TRUST</u>		
c EIN-PN <u>27-2436452-006</u>	d Entity code <u>C</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>4298848</u>
a Name of MTIA, CCT, PSA, or 103-12 IE: <u>GLOBAL EQUITY PARTICIPANT</u>		
b Name of sponsor of entity listed in (a): <u>AON HEWITT GROUP TRUST</u>		
c EIN-PN <u>27-2436452-011</u>	d Entity code <u>C</u>	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) <u>3703612</u>

a Name of MTIA, CCT, PSA, or 103-12 IE: AHGT INTERMEDIATE CREDIT**b** Name of sponsor of entity listed in (a): AON HEWITT GROUP TRUST

c EIN-PN 27-2436452-008	d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 26454902
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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)
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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)
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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)
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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)
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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)
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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)
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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)
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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)
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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
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plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN

SCHEDULE H (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	OMB No. 1210-0110
		2018
		This Form is Open to Public Inspection

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018		
A Name of plan GRAFTECH INTERNATIONAL HOLDINGS INC. RETIREMENT PLAN	B Three-digit plan number (PN) ►	001
C Plan sponsor's name as shown on line 2a of Form 5500 GRAFTECH INTERNATIONAL HOLDINGS INC		
		D Employer Identification Number (EIN) 06-1249029

Part I	Asset and Liability Statement
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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)	4363400	253800
(2) Participant contributions	1b(2)		
(3) Other.....	1b(3)	0	4073
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit).....	1c(1)	2094103	1978099
(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)	107748688	97862981
(10) Value of interest in pooled separate accounts	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)		
(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)		

1d Employer-related investments:

		(a) Beginning of Year	(b) End of Year
(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	114206191	100098953

Liabilities

g Benefit claims payable	1g		
h Operating payables	1h	76882	75597
i Acquisition indebtedness	1i		
j Other liabilities	1j		
k Total liabilities (add all amounts in lines 1g through 1j)	1k	76882	75597

Net Assets

l Net assets (subtract line 1k from line 1f)	1l	114129309	100023356
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Part II Income and Expense Statement

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

Income

		(a) Amount	(b) Total
a Contributions:			
(1) Received or receivable in cash from: (A) Employers	2a(1)(A)	1015200	
(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)		1015200
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)	43362	
(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)		43362
(2) Dividends: (A) Preferred stock	2b(2)(A)		
(B) Common stock	2b(2)(B)		
(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)		
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		0
(3) Rents	2b(3)		
(4) Net gain (loss) on sale of assets: (A) Aggregate proceeds	2b(4)(A)		
(B) Aggregate carrying amount (see instructions)	2b(4)(B)		
(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result	2b(4)(C)		0
(5) Unrealized appreciation (depreciation) of assets: (A) Real estate	2b(5)(A)		
(B) Other	2b(5)(B)		
(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)		0

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		-5438901
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		
(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		-4380339

Expenses

e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	8718613	
(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)		8718613
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)	348019	
(2) Contract administrator fees.....	2i(2)		
(3) Investment advisory and management fees.....	2i(3)		
(4) Other	2i(4)	658982	
(5) Total administrative expenses. Add lines 2i(1) through (4).....	2i(5)		1007001
j Total expenses. Add all expense amounts in column (b) and enter total	2j		9725614

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k		-14105953
l Transfers of assets:			
(1) To this plan.....	2l(1)		
(2) From this plan.....	2l(2)		

Part III Accountant's Opinion

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

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

(1) ☐ Unqualified (2) ☐ Qualified (3) ☒ 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: MEADEN & MOORE

(2) EIN: 34-1818258

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.)		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.).....		X	
e Was this plan covered by a fidelity bond?	X		10000000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?		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?.....		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?.....		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.)	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.)	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?		X	
l Has the plan failed to provide any benefit when due under the plan?.....		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)			
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.			

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 4151933. (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.
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For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A Name of plan <u>GRAFTECH INTERNATIONAL HOLDINGS INC. RETIREMENT PLAN</u>	B Three-digit plan number (PN) ▶ <u>001</u>
C Plan sponsor's name as shown on line 2a of Form 5500 <u>GRAFTECH INTERNATIONAL HOLDINGS INC</u>	D Employer Identification Number (EIN) <u>06-1249029</u>

Part I	Distributions
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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	<u>0</u>
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>1</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.)
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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
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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
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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: 16.8% Investment-Grade Debt: 76.5% High-Yield Debt: 6.7% Real Estate: 0.0% Other: 0.0%

- 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):

Financial Statements and Report of Independent
Certified Public Accountants

GrafTech International Holdings, Inc.
Retirement Plan

December 31, 2018 and 2017

TABLE OF CONTENTS

	<u>Page</u>
<u>Independent Auditors' Report</u>	<u>1</u>
<u>Statements of Net Assets Available for Benefits</u>	<u>3</u>
<u>Statements of Changes in Net Assets Available for Benefits</u>	<u>4</u>
<u>Notes to Financial Statements</u>	<u>5</u>
<u>Supplemental Schedule</u>	
<u>Schedule H, Line 4i - Schedule of Assets (Held at End of Year)</u>	<u>11</u>



INDEPENDENT AUDITOR'S REPORT

Administrative Committee
GrafTech International Holdings, Inc. Retirement Plan
Brooklyn Heights, Ohio

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of GrafTech International Holdings, Inc. Retirement Plan, which comprise the statements of net assets available for benefits as of December 31, 2018 and 2017, and the related statements of changes in net assets available for benefits for the years then ended, 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.

Auditor's Responsibility

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

Basis for Disclaimer of Opinion

As permitted by 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974, the Plan administrator instructed us not to perform, and we did not perform, any auditing procedures with respect to the information summarized in Note 6, which was certified by The Bank of New York Mellon/BNY Mellon, N.A., 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 years then ended, that the information provided to the plan administrator by the trustee is complete and accurate.

Disclaimer of Opinion

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

Other Matter

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

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

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

A handwritten signature in blue ink that reads "Meaden & Moore, Ltd." in a cursive script.

Meaden & Moore, Ltd.
Cleveland, Ohio

October 9, 2019

GRAFTECH INTERNATIONAL HOLDINGS, INC. RETIREMENT PLAN
STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

	As of December 31,	
	2018	2017
Assets:		
Investments, at fair value:		
Collective trust funds	\$ 97,862,981	\$ 107,748,688
Cash, non-interest bearing	1,978,099	2,094,103
Employer contribution receivable	253,800	4,363,400
Interest receivable	4,073	—
Total assets	<u>100,098,953</u>	<u>114,206,191</u>
Liabilities:		
Accrued expenses	75,597	76,882
Net assets available for benefits	<u><u>\$ 100,023,356</u></u>	<u><u>\$ 114,129,309</u></u>

See accompanying notes

GRAFTECH INTERNATIONAL HOLDINGS INC. RETIREMENT PLAN
STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

	Year Ended December 31,	
	2018	2017
Additions:		
Investment income (loss):		
Net (depreciation) appreciation in fair value of collective trust funds	\$ (5,438,901)	\$ 12,547,211
Interest and dividends	43,362	17,119
Total investment income (loss)	(5,395,539)	12,564,330
Employer contributions	1,015,200	8,698,400
	(4,380,339)	21,262,730
Deductions:		
Benefits paid to participants	8,718,613	8,593,776
Administrative expenses	1,007,001	1,254,862
Total Deductions	9,725,614	9,848,638
Net (decrease) increase	(14,105,953)	11,414,092
Net assets available for benefits:		
Beginning of year	114,129,309	102,715,217
End of year	<u>\$ 100,023,356</u>	<u>\$ 114,129,309</u>

See accompanying notes

GRAFTECH INTERNATIONAL HOLDINGS, INC. RETIREMENT PLAN
NOTES TO FINANCIAL STATEMENTS
December 31, 2018 and 2017

NOTE 1 - PLAN DESCRIPTION

The following brief description of the GrafTech International Holdings, Inc. Retirement Plan (Plan) is provided for general information purposes only. Participants should refer to the Plan document for more complete information.

General - The Plan is a non-contributory defined benefit pension plan covering substantially all domestic employees of GrafTech International Holdings, Inc. (Company) hired prior to January 1, 2002 as well as certain collectively bargained employees hired after that date. It is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA). Effective January 1, 2015, the Plan was amended and restated to comply with updates to applicable tax regulations.

The Company is a wholly owned subsidiary of GrafTech International Ltd. (GTI) through which the Company conducts most of its United States operations. GTI is a publicly traded entity (NYSE: EAF) and an indirect subsidiary of Brookfield Asset Management Inc. a global asset manager traded on the following exchanges (NYSE: BAM) (TSX: BAM.A) (Euronext: BAMA).

Funding policy - The Company's funding policy is to make contributions to the Plan in amounts not less than the minimum funding requirements of ERISA and not more than the maximum tax-deductible amount permitted by the Internal Revenue Code (the Code). In accordance with this funding policy, Company contributions totaled \$1,015,200 for 2018, of which \$253,800 were contributed in 2019. Company contributions totaled \$8,698,400 for 2017, of which \$4,363,400 was contributed in 2018. The Company's contributions for 2018 and 2017 exceeded the minimum funding requirements of ERISA.

Pension benefits - Employees with 5 or more years of credited service are entitled to pension benefits beginning at normal retirement age (65) primarily based upon final average earnings and years of credited service through the applicable date the Plan was frozen. The Plan permits early retirement at age 50 with 10 or more years of credited service. Employees with years of credited service plus age totaling 85 or employees at age 62 with 10 or more years of credited service are entitled to unreduced early retirement benefits. Employees may elect to receive their pension benefits in the form of a joint and survivor annuity or other contingent annuities.

On January 1, 2002 the Plan became frozen to new entrants. On March 31, 2003 the credited service for the grandfathered group (participants who were age 40 or older with at least five years of credited service on January 1, 2002) was frozen. On April 30, 2003, the credited service for the Columbia, TN location of the Union group was frozen. On July 31, 2003, the credited service for the Lawrenceburg, TN location of the Union group was frozen. On August 1, 2004, the credited service for the Clarksburg, WV location of the Union group was frozen. The Plan is now frozen for all employees. The Plan will remain in existence as long as necessary to pay benefits.

Death and disability benefits - If an active employee with at least five years of credited service dies at age 50 or older, a survivor benefit equal to 50% of the value of the employee's accumulated pension benefits is paid to the employee's beneficiary on the first of the month following the employee's date of death. If an active employee with at least five years of credited service dies under age 50, a survivor benefit equal to 50% of the value of the employee's accumulated pension benefits is paid to the employee's beneficiary on the first of the month that the employee would have been eligible to retire.

GRAFTECH INTERNATIONAL HOLDINGS, INC. RETIREMENT PLAN
NOTES TO FINANCIAL STATEMENTS
December 31, 2018 and 2017

NOTE 2 - SUMMARY OF ACCOUNTING POLICIES

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

Basis of Accounting

The accompanying financial statements are prepared on the accrual basis of accounting.

Use of Estimates

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

Investment Valuation and Income Recognition

The Plan's investments are stated at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 3 for a discussion of fair value measurements.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation includes the Plan's gains and losses on investments bought and sold as well as held during the year.

Actuarial Present Value of Accumulated Plan Benefits

Accumulated plan benefits are those future periodic payments, including lump-sum distributions, attributable under the Plan's provisions to the service employees have rendered. Accumulated plan benefits include benefits expected to be paid to (a) retired or terminated employees or their beneficiaries, (b) beneficiaries of employees who have died, and (c) present employees or their beneficiaries. Benefits under the Plan are based on the average of the highest three calendar years of pensionable wages during the ten-year period preceding the date of retirement, death or termination up to the applicable date that the Plan was frozen. Benefits payable under all circumstances - retirement, death, disability - are included, to the extent they are deemed attributable to employee service rendered through the applicable date that the Plan was frozen.

Payment of Benefits

Benefit payments to participants are recorded upon distribution.

Administrative Expenses

Trustee fees, investment management fees and Pension Benefit Guaranty Corporation (PBGC) premiums are generally paid by the Plan. All other administrative expenses are paid by the Company.

GRAFTECH INTERNATIONAL HOLDINGS, INC. RETIREMENT PLAN
NOTES TO FINANCIAL STATEMENTS
December 31, 2018 and 2017

NOTE 3 – FAIR VALUE MEASUREMENTS

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 quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs. The three levels of the fair value hierarchy under Topic 820 are described as follows:

Level 1: Inputs to the valuation methodology are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Plan can access at the measurement date.

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, such as:

- Quoted prices for similar assets or liabilities in active markets
- Quoted prices for identical or similar assets or liabilities in inactive markets
- Inputs other than quoted prices that are observable for the asset or liability
- 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 that are unobservable inputs for the asset or liability

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

Collective Trust: The Aon Hewitt Group Trust (AHGT) is comprised of separate investment funds which were offered through a private placement. The Plan holds units of certain of the AHGT funds. The units are valued based on the net asset value (NAV) which is based primarily on quoted market prices of the underlying securities of the funds. Certain of the funds' underlying investments include securities for which quoted market prices are not available. Those securities are valued using data obtained by the trustee from the best source available (i.e. brokers, dealers, and /or appraisers) or the market value of similar investments with a readily ascertainable market value.

The preceding method described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Plan believes its valuation method is appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following table sets forth those investments measured at NAV (the practical expedient).

	<u>As of</u> <u>December 31, 2018</u>	<u>As of</u> <u>December 31, 2017</u>
Aon Hewitt Group Trust:		
Common Collective Trust	\$ 97,862,981	\$ 107,748,688

GRAFTECH INTERNATIONAL HOLDINGS, INC. RETIREMENT PLAN
NOTES TO FINANCIAL STATEMENTS
December 31, 2018 and 2017

There were no unfunded commitments in any funds as of both periods presented. All funds feature daily redemption frequency, a 15 day redemption notice period and no redemption restrictions.

NOTE 4 - PLAN TERMINATION

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

In the event the Plan terminates, the net assets of the Plan will be allocated following the order of priority established by ERISA and its related regulations.

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 survivors' pensions. However, the PBGC may 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. However, the amount of benefit protection is subject to certain limitations.

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 5 - ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS

The actuarial present value of accumulated plan benefits is determined by an actuary from Aon Consulting and is that 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 between the valuation date and the expected date of payment.

The actuarial present value of accumulated plan benefits as of January 1, 2018 was as follows:

Vested Benefits	
Participants currently receiving benefits	\$ 95,208,750
Other participants	19,318,487
	<hr/> 114,527,237
Non-Vested benefits	231,356
Total actuarial present value of accumulated plan benefits	<hr/> <hr/> \$ 114,758,593

GRAFTECH INTERNATIONAL HOLDINGS, INC. RETIREMENT PLAN
NOTES TO FINANCIAL STATEMENTS
December 31, 2018 and 2017

The table below outlines changes in the present value of accumulated plan benefits:

Actuarial present value of accumulated plan benefits as of January 1, 2017	\$ 117,831,485
Increases (decreases) attributed to:	
Benefits paid	(8,593,776)
Change in actuarial assumptions	(803,281)
Other changes - benefit accruals	360,713
Interest	5,963,452
	<u>(3,072,892)</u>
Actuarial present value of accumulated plan benefits as of January 1, 2018	<u>\$ 114,758,593</u>

The significant actuarial assumptions used in the above valuations were as follows:

Life expectancy:	RP-2014 mortality table for employees and healthy annuitants (with a fully generational projection using scale MP-2017) (2018)
	RP-2014 mortality table for employees and healthy annuitants (with a fully generational projection using scale MP-2016) (2017)
Interest rate:	5.25% (2018 and 2017)
Assumed retirement age:	Varying from ages 50 to 70, with the weighted average retirement age being 65 (2018)
	Varying from ages 50 to 70, with the weighted average retirement age being 65 (2017)

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

NOTE 6 – SUMMARY OF FINANCIAL INFORMATION CERTIFIED BY THE TRUSTEE

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. Accordingly, The Bank of New York Mellon/BNY Mellon, N.A., as trustee of the Plan has certified to the completeness and accuracy of all investments reflected on the accompanying Statements of Net Assets Available for Benefits, the related investment activity reflected in the Statements of Changes in Net Assets Available for Benefits, and the supplemental schedule. Amounts certified by the trustee have not been subjected to auditing procedures.

NOTE 7 - RELATED PARTY TRANSACTIONS

Certain Plan investments are shares of a collective trust managed by the trustee and, therefore, these transactions qualify as party-in-interest transactions which are exempt from being prohibited

GRAFTECH INTERNATIONAL HOLDINGS, INC. RETIREMENT PLAN
NOTES TO FINANCIAL STATEMENTS
December 31, 2018 and 2017

transactions. In addition, the Plan has arrangements with various service providers and these arrangements qualify as party in interest transactions.

NOTE 8 - TAX STATUS

The Internal Revenue Service (IRS) has determined and informed the Company by a letter dated October 21, 2015, that the Plan and related trust are designed in accordance with applicable sections of the Code. Once qualified, the Plan is required to operate in conformity with the Code to maintain its qualification. The Plan has been amended since receiving the determination letter. However, the Plan Administrator believes that the Plan is designed and is currently being operated in compliance with the applicable requirements of the Code.

Accounting principles generally accepted in the United States of America require 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 applicable taxing authorities. 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 the recognition of a liability (or asset) or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

NOTE 9 - RISKS AND UNCERTAINTIES

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and such changes could materially affect the amounts reported in the Statements of Net Assets Available for Benefits.

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 would be material to the financial statements.

NOTE 10 – SUBSEQUENT EVENTS

The Plan evaluated its December 31, 2018 financial statements for subsequent events through October 9, 2019, the date the financial statements were available to be issued.

SUPPLEMENTAL SCHEDULE

GRAFTECH INTERNATIONAL HOLDINGS, INC. RETIREMENT PLAN
Schedule H, Line 4(i) - SCHEDULE OF ASSETS (HELD AT END OF YEAR)
EIN # 06-1249029, Plan # 001
December 31, 2018

(a)	(b)	(c)	(d)	(e)
	Identity of issue, borrower, lessor, or similar party	Description of investment, including maturity date, rate of interest collateral, par or maturity value	Cost	Current Value
	* Aon Hewitt Group Trust			
	Large Cap Equity Fund	Collective Trust	\$ 4,221,159	\$ 5,125,128
	Small & Mid Cap Equity Fund	Collective Trust	727,571	1,353,776
	Intermediate Credit Bond Fund	Collective Trust	22,564,564	26,454,902
	High Yield Bond Fund	Collective Trust	2,866,460	3,845,963
	Long Credit Bond Fund	Collective Trust	38,635,382	53,080,752
	US Large Cap Equity Fund	Collective Trust	2,917,433	4,298,848
	Global Equity Fund	Collective Trust	3,057,532	3,703,612
			<u>\$ 74,990,101</u>	<u>\$ 97,862,981</u>

* Indicates party-in-interest to the Plan

Schedule SB Attachment (Form 5500)—2018 Plan Year
 Graftech International Holdings, Inc. Retirement Plan
 EIN: 06-1249029 PN: 001

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

Attained Age	Number of Participants Years of Credited Service									
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+
<25										
25-29										
30-34										
35-39										
40-44										
45-49					1					
50-54						1		3		
55-59					1		2	1	3	
60-64								2	2	5
65-69										1
70+										

N-22

Schedule SB Attachment (Form 5500)—2018 Plan Year
 Graftech International Holdings, Inc. Retirement Plan
 EIN: 06-1249029 PN: 001

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

Interest Rates for Minimum Funding Purposes	Based on segment rates with a four-month lookback (as of September 2017), each adjusted as needed to fall within the 25-year average interest rate stabilization corridor
1st Segment Rate	3.92%
2nd Segment Rate	5.52%
3rd Segment Rate	6.29%
Interest Rates for Maximum Tax Purposes	Based on segment rates with a four-month lookback (as of September 2017), without regard to interest rate stabilization
1st Segment Rate	1.75%
2nd Segment Rate	3.76%
3rd Segment Rate	4.66%
Retirement Age	
Active Participants	See Table 1
Terminated Vested Participants	Age 65
Mortality Rates	
Healthy and Disabled	2018 static mortality table (with new basis adoption deferred to 2019) for annuitants and non-annuitants per §1.430(h)(3)-1(e) [based on the RP-2000 table (and the regulations in effect for years prior to 2017)]
Withdrawal Rates	See Table 2
Disability Rates	See Table 3
Decrement Timing	Beginning of year decrements
Surviving Spouse Benefit	It is assumed that 80% of males and 50% of females have an eligible spouse, and that males are three years older than their spouses.
Benefit Limits	Projected benefits and compensation are limited by the current IRC section 415 maximum benefit of \$220,000 and the IRC section 401(a)(17) compensation limit of \$275,000.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Valuation of Plan Assets

Smoothed fair market value of assets over the current and prior two years, adjusted for contributions, benefit payments, administrative expenses, and expected earnings. The average value of assets calculated in this manner is further limited to not less than 90% nor more than 110% of fair market value.

A characteristic of this method is that the expected distribution of the value of plan assets is skewed toward understatement relative to the corresponding market values for expected long-term rates of return in excess of the third segment rate under IRC section 430(h)(2)(C)(iii).

Expected Return on Assets

2016 Plan Year

5.25%

2017 Plan Year

5.25%

Trust Expenses Included in Target Normal Cost

\$1,021,000

Actuarial Method

Standard unit credit cost method

Valuation Date

January 1, 2018

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Table 1

Retirement Rates

<u>Age</u>	<u>Rate</u>
50	3.0%
51	3.0%
52	3.0%
53	3.0%
54	3.0%
55	2.0%
56	2.0%
57	2.0%
58	2.0%
59	7.0%
60	7.0%
61	10.0%
62	15.0%
63	12.0%
64	15.0%
65	50.0%
66	30.0%
67	30.0%
68	30.0%
69	30.0%
70	100.0%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Table 2

Withdrawal Rates

Age	Male	Female	Age	Male	Female
15	0.00%	0.00%	45	2.49%	3.26%
16	0.00%	0.00%	46	2.36%	3.12%
17	0.00%	0.00%	47	2.29%	2.98%
18	0.00%	0.00%	48	2.22%	2.91%
19	0.00%	0.00%	49	2.22%	2.81%
20	12.32%	20.79%	50	1.00%	1.00%
21	12.32%	20.79%	51	1.00%	1.00%
22	12.32%	20.79%	52	1.00%	1.00%
23	12.32%	20.79%	53	1.00%	1.00%
24	12.32%	20.79%	54	1.00%	1.00%
25	12.32%	20.79%	55	0.00%	0.00%
26	11.43%	19.13%	56	0.00%	0.00%
27	10.55%	17.52%	57	0.00%	0.00%
28	9.70%	16.09%	58	0.00%	0.00%
29	8.86%	14.75%	59	0.00%	0.00%
30	8.12%	13.59%	60	0.00%	0.00%
31	7.42%	12.40%	61	0.00%	0.00%
32	6.79%	11.23%	62	0.00%	0.00%
33	6.17%	10.12%	63	0.00%	0.00%
34	5.61%	9.01%	64	0.00%	0.00%
35	5.06%	8.04%	65	0.00%	0.00%
36	4.57%	7.28%	66	0.00%	0.00%
37	4.16%	6.58%	67	0.00%	0.00%
38	3.81%	5.89%	68	0.00%	0.00%
39	3.53%	5.27%	69	0.00%	0.00%
40	3.26%	4.71%	70	0.00%	0.00%
41	3.05%	4.30%	71	0.00%	0.00%
42	2.91%	3.95%	72	0.00%	0.00%
43	2.77%	3.67%	73	0.00%	0.00%
44	2.63%	3.47%	74	0.00%	0.00%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Table 3

Disability Rates

Age	Male	Female	Age	Male	Female
15	0.000%	0.000%	45	0.132%	0.198%
16	0.000%	0.000%	46	0.147%	0.221%
17	0.000%	0.000%	47	0.166%	0.249%
18	0.080%	0.120%	48	0.187%	0.281%
19	0.080%	0.120%	49	0.210%	0.315%
20	0.080%	0.120%	50	0.238%	0.357%
21	0.080%	0.120%	51	0.270%	0.405%
22	0.080%	0.120%	52	0.309%	0.463%
23	0.080%	0.120%	53	0.349%	0.523%
24	0.080%	0.120%	54	0.395%	0.593%
25	0.080%	0.120%	55	0.454%	0.681%
26	0.080%	0.120%	56	0.527%	0.791%
27	0.080%	0.120%	57	0.620%	0.930%
28	0.080%	0.120%	58	0.740%	1.110%
29	0.080%	0.120%	59	0.840%	1.260%
30	0.080%	0.120%	60	0.920%	1.380%
31	0.081%	0.121%	61	0.981%	1.471%
32	0.081%	0.122%	62	1.028%	1.542%
33	0.083%	0.124%	63	1.065%	1.598%
34	0.084%	0.126%	64	1.093%	1.640%
35	0.085%	0.128%	65	0.000%	0.000%
36	0.087%	0.130%	66	0.000%	0.000%
37	0.089%	0.133%	67	0.000%	0.000%
38	0.091%	0.137%	68	0.000%	0.000%
39	0.095%	0.142%	69	0.000%	0.000%
40	0.098%	0.147%	70	0.000%	0.000%
41	0.102%	0.153%	71	0.000%	0.000%
42	0.106%	0.159%	72	0.000%	0.000%
43	0.113%	0.169%	73	0.000%	0.000%
44	0.122%	0.183%	74	0.000%	0.000%

Form 5500Department of the Treasury
Internal Revenue ServiceDepartment of Labor
Employee Benefits Security
Administration

Pension Benefit Guaranty Corporation

Annual Return/Report of Employee Benefit Plan

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

▶ **Complete all entries in accordance with the instructions to the Form 5500.**OMB Nos. 1210-0110
1210-0089**2018****This Form Is Open to Public Inspection****Part I Annual Report Identification Information**

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

- A** This return/report is for: ☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)
- ☒ 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 GRAFTECH INTERNATIONAL HOLDINGS INC. RETIREMENT PLAN	1b Three-digit plan number (PN) ▶ 001
	1c Effective date of plan 02/25/1991
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) GRAFTECH INTERNATIONAL HOLDINGS INC HUMAN RESOURCE DEPARTMENT 982 KEYNOTE CIRCLE BROOKLYN HEIGHTS OH 44131	2b Employer Identification Number (EIN) 06-1249029
	2c Plan Sponsor's telephone number 216-676-2002
	2d Business code (see instructions) 335900

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		10/11/2019	DENNIS ROBINSON
	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
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN 4d PN
5 Total number of participants at the beginning of the plan year	5 1,593
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1), 6a(2), 6b, 6c, and 6d).	
a(1) Total number of active participants at the beginning of the plan year	6a(1) 22
a(2) Total number of active participants at the end of the plan year	6a(2) 19
b Retired or separated participants receiving benefits.....	6b 985
c Other retired or separated participants entitled to future benefits	6c 365
d Subtotal. Add lines 6a(2), 6b, and 6c.....	6d 1,369
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	6e 200
f Total. Add lines 6d and 6e	6f 1,569
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	6g
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	6h 0
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	7

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

1A 1I

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

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

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

a Pension Schedules

- (1)** ☒ **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 _____

Plan Name	Graftech International Holdings Inc. Retirement Plan
Plan Sponsor EIN	06-1249029
ERISA Plan No.	001
Plan Year End	12/31/2018

The required attachment noted below is included within the Accountant's Opinion attachment to the Form 5500 Schedule H, Part III, Line 4, which consists of the entire Audit report issued by the Plan's Independent Qualified Public Accountant (IQPA).

Form/Schedule	Line Item	Description
5500 Schedule H	Line 4j	Schedule of Reportable Transactions - FivePrcntTrans

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration 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
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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 GRAFTECH INTERNATIONAL HOLDINGS INC. RETIREMENT PLAN	B Three-digit plan number (PN) ►	001
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF Graftech International Holdings Inc	D Employer Identification Number (EIN) 06-1249029	
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	114,114,358
	b Actuarial value	2b	108,036,437
3	Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target
	a For retired participants and beneficiaries receiving payment	1,183	90,348,156
	b For terminated vested participants	388	14,790,748
	c For active participants	22	2,841,597
	d Total	1,593	107,980,501
4	If the plan is in at-risk status, check the box and complete lines (a) and (b) ☐		
	a Funding target disregarding prescribed at-risk assumptions	4a	
	b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b	
5	Effective interest rate.....	5	5.54%
6	Target normal cost	6	1,021,000

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	KARTHIK BALAJI <u>K.B.</u> Signature of actuary KARTHIK BALAJI, FSA, EA Type or print name of actuary AON CONSULTING, INC. Firm name 200 E. RANDOLPH, 14TH FLOOR CHICAGO IL 60601 Address of the firm	<u>09/24/2019</u> Date <u>1707905</u> Most recent enrollment number <u>312-381-1000</u> Telephone number (including area code)
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If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

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

Schedule SB (Form 5500) 2018
v. 171027

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 62
23 Mortality table(s) (see instructions)	Prior regulation:	☐ Prescribed - combined	☒ Prescribed - separate	☐ Substitute
	Current regulation:	☐ Prescribed - combined	☐ Prescribed - separate	☐ Substitute

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment.	☒ Yes	☐ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment.	☐ Yes	☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.	☒ Yes	☐ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	27	

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6)	31a	1,021,000	
b Excess assets, if applicable, but not greater than line 31a	31b	46,508	
32 Amortization installments:	Outstanding Balance		Installment
a Net shortfall amortization installment	0		0
b Waiver amortization installment	0		0
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	34	974,492	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement	0	0	0
36 Additional cash requirement (line 34 minus line 35)	36	974,492	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	37	979,915	
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a	5,423	
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0	
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39	0	
40 Unpaid minimum required contributions for all years	40	0	

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:				
a Schedule elected	☐ 2 plus 7 years	☐ 15 years		
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008	☐ 2009	☐ 2010	☐ 2011

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Schedule SB, line 19—Discounted Employer Contributions

Year applied for contributions: 2018

Date	Amount	Days to Discount to 1/1/2018 at 5.54%	Interest Adjusted Contribution
April 13, 2018	\$ 253,800	102	\$ 250,004
July 13, 2018	253,800	193	246,666
October 15, 2018	253,800	287	243,264
January 15, 2019	253,800	379	239,981
Total Contribution	\$ 1,015,200		\$ 979,915

Schedule SB Attachment (Form 5500)—2018 Plan Year
 Graftech International Holdings, Inc. Retirement Plan
 EIN: 06-1249029 PN: 001

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

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

(a) Age	(b) Rate	(c) Weight	(d) Product (a) × (b) × (c)
50	3.00%	1.0000	1.50
51	3.00%	0.9700	1.48
52	3.00%	0.9409	1.47
53	3.00%	0.9127	1.45
54	3.00%	0.8853	1.43
55	2.00%	0.8587	0.94
56	2.00%	0.8416	0.94
57	2.00%	0.8247	0.94
58	2.00%	0.8082	0.94
59	7.00%	0.7921	3.27
60	7.00%	0.7366	3.09
61	10.00%	0.6851	4.18
62	15.00%	0.6166	5.73
63	12.00%	0.5241	3.96
64	15.00%	0.4612	4.43
65	50.00%	0.3920	12.74
66	30.00%	0.1960	3.88
67	30.00%	0.1372	2.76
68	30.00%	0.0960	1.96
69	30.00%	0.0672	1.39
70	100.00%	0.0471	3.29
Weighted Average			62

Schedule SB Attachment (Form 5500)—2018 Plan Year
 Graftech International Holdings, Inc. Retirement Plan
 EIN: 06-1249029 PN: 001

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

Interest Rates for Minimum Funding Purposes	Based on segment rates with a four-month lookback (as of September 2017), each adjusted as needed to fall within the 25-year average interest rate stabilization corridor
1st Segment Rate	3.92%
2nd Segment Rate	5.52%
3rd Segment Rate	6.29%
Interest Rates for Maximum Tax Purposes	Based on segment rates with a four-month lookback (as of September 2017), without regard to interest rate stabilization
1st Segment Rate	1.75%
2nd Segment Rate	3.76%
3rd Segment Rate	4.66%
Retirement Age	
Active Participants	See Table 1
Terminated Vested Participants	Age 65
Mortality Rates	
Healthy and Disabled	2018 static mortality table (with new basis adoption deferred to 2019) for annuitants and non-annuitants per §1.430(h)(3)-1(e) [based on the RP-2000 table (and the regulations in effect for years prior to 2017)]
Withdrawal Rates	See Table 2
Disability Rates	See Table 3
Decrement Timing	Beginning of year decrements
Surviving Spouse Benefit	It is assumed that 80% of males and 50% of females have an eligible spouse, and that males are three years older than their spouses.
Benefit Limits	Projected benefits and compensation are limited by the current IRC section 415 maximum benefit of \$220,000 and the IRC section 401(a)(17) compensation limit of \$275,000.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Valuation of Plan Assets

Smoothed fair market value of assets over the current and prior two years, adjusted for contributions, benefit payments, administrative expenses, and expected earnings. The average value of assets calculated in this manner is further limited to not less than 90% nor more than 110% of fair market value.

A characteristic of this method is that the expected distribution of the value of plan assets is skewed toward understatement relative to the corresponding market values for expected long-term rates of return in excess of the third segment rate under IRC section 430(h)(2)(C)(iii).

Expected Return on Assets

2016 Plan Year

5.25%

2017 Plan Year

5.25%

Trust Expenses Included in Target Normal Cost

\$1,021,000

Actuarial Method

Standard unit credit cost method

Valuation Date

January 1, 2018

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Table 1

Retirement Rates

<u>Age</u>	<u>Rate</u>
50	3.0%
51	3.0%
52	3.0%
53	3.0%
54	3.0%
55	2.0%
56	2.0%
57	2.0%
58	2.0%
59	7.0%
60	7.0%
61	10.0%
62	15.0%
63	12.0%
64	15.0%
65	50.0%
66	30.0%
67	30.0%
68	30.0%
69	30.0%
70	100.0%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Table 2

Withdrawal Rates

Age	Male	Female	Age	Male	Female
15	0.00%	0.00%	45	2.49%	3.26%
16	0.00%	0.00%	46	2.36%	3.12%
17	0.00%	0.00%	47	2.29%	2.98%
18	0.00%	0.00%	48	2.22%	2.91%
19	0.00%	0.00%	49	2.22%	2.81%
20	12.32%	20.79%	50	1.00%	1.00%
21	12.32%	20.79%	51	1.00%	1.00%
22	12.32%	20.79%	52	1.00%	1.00%
23	12.32%	20.79%	53	1.00%	1.00%
24	12.32%	20.79%	54	1.00%	1.00%
25	12.32%	20.79%	55	0.00%	0.00%
26	11.43%	19.13%	56	0.00%	0.00%
27	10.55%	17.52%	57	0.00%	0.00%
28	9.70%	16.09%	58	0.00%	0.00%
29	8.86%	14.75%	59	0.00%	0.00%
30	8.12%	13.59%	60	0.00%	0.00%
31	7.42%	12.40%	61	0.00%	0.00%
32	6.79%	11.23%	62	0.00%	0.00%
33	6.17%	10.12%	63	0.00%	0.00%
34	5.61%	9.01%	64	0.00%	0.00%
35	5.06%	8.04%	65	0.00%	0.00%
36	4.57%	7.28%	66	0.00%	0.00%
37	4.16%	6.58%	67	0.00%	0.00%
38	3.81%	5.89%	68	0.00%	0.00%
39	3.53%	5.27%	69	0.00%	0.00%
40	3.26%	4.71%	70	0.00%	0.00%
41	3.05%	4.30%	71	0.00%	0.00%
42	2.91%	3.95%	72	0.00%	0.00%
43	2.77%	3.67%	73	0.00%	0.00%
44	2.63%	3.47%	74	0.00%	0.00%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Table 3

Disability Rates

Age	Male	Female	Age	Male	Female
15	0.000%	0.000%	45	0.132%	0.198%
16	0.000%	0.000%	46	0.147%	0.221%
17	0.000%	0.000%	47	0.166%	0.249%
18	0.080%	0.120%	48	0.187%	0.281%
19	0.080%	0.120%	49	0.210%	0.315%
20	0.080%	0.120%	50	0.238%	0.357%
21	0.080%	0.120%	51	0.270%	0.405%
22	0.080%	0.120%	52	0.309%	0.463%
23	0.080%	0.120%	53	0.349%	0.523%
24	0.080%	0.120%	54	0.395%	0.593%
25	0.080%	0.120%	55	0.454%	0.681%
26	0.080%	0.120%	56	0.527%	0.791%
27	0.080%	0.120%	57	0.620%	0.930%
28	0.080%	0.120%	58	0.740%	1.110%
29	0.080%	0.120%	59	0.840%	1.260%
30	0.080%	0.120%	60	0.920%	1.380%
31	0.081%	0.121%	61	0.981%	1.471%
32	0.081%	0.122%	62	1.028%	1.542%
33	0.083%	0.124%	63	1.065%	1.598%
34	0.084%	0.126%	64	1.093%	1.640%
35	0.085%	0.128%	65	0.000%	0.000%
36	0.087%	0.130%	66	0.000%	0.000%
37	0.089%	0.133%	67	0.000%	0.000%
38	0.091%	0.137%	68	0.000%	0.000%
39	0.095%	0.142%	69	0.000%	0.000%
40	0.098%	0.147%	70	0.000%	0.000%
41	0.102%	0.153%	71	0.000%	0.000%
42	0.106%	0.159%	72	0.000%	0.000%
43	0.113%	0.169%	73	0.000%	0.000%
44	0.122%	0.183%	74	0.000%	0.000%

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Schedule SB, Part V—Summary of Plan Provisions

The following summary describes plan provisions assumed in calculating the cost of your pension plan

Effective Date	February 25, 1991
Participation	Date of employment,
Covered Employees	All U.S. Employees
Credited Service	Years and months of employment (including service with Union Carbide Corporation).

For benefit accrual purposes: On January 1, 2002, the active population was split into a grandfathered group with credited service continuing until January 1, 2007, a non-grandfathered group where credited service stops as of January 1, 2002, and a Union group that continues to accrue credited service as usual. On March 31, 2003, credited service for the grandfathered group was frozen. On April 30, 2003, the credited service for the Columbia location of the Union group was frozen. On July 31, 2003, the credited service for the Lawrenceburg location of the Union group was frozen.

For other eligibility purposes, including early retirement subsidies, all employment service (including service with Union Carbide Corporation) is considered. In addition, credited service for participants separating from GrafTech due to the divestitures of the Advanced Energy Technologies (AET) and GrafTech Advanced Graphite Materials (GAGM) businesses in 2017 will also include employment service with their respective acquiring companies following the divestiture.

Pensionable Pay	Base pay plus payments awarded under the annual or middle management incentive plans and a portion of Bonus II payments and profit sharing awards (up to 8% of base pay) under the alternative compensation program. Benefits in excess of the section 415 limits are provided under the Benefit Equalization Plan (BEP). The qualified plan does not recognize earnings in excess of \$200,000. Benefits attributable to pay in excess of the IRS pay limit are provided under the Supplemental Retirement Income Plan (SRIP). Benefits attributable to the impact of separate averaging of base and bonus are provided under the Executive Retirement Income Plan (ERIP).
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Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Final Average Monthly Compensation	The average of the highest three calendar years of pensionable pay during the 10-year period next preceding the date of retirement, termination or death. Final 36 months of pensionable earnings are used, if greater. Separate averaging of base and bonus is provided under ERIP.
Normal Retirement	First of month coinciding with or next following the attainment of age 65.
Early Retirement	A participant with 10 or more years of continuous employment and whose age is at least 50 is eligible for early retirement. Refer to the definition of Credited Service above.
Disability Retirement	Disability with 10 years of credited service. Disability must be total and permanent. Refer to the definition of Credited Service above.
Death Retirement	Death with 10 years of credited service. Refer to the definition of Credited Service above.
Vesting Schedule	100% after five years of service.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Normal Retirement Benefit Amount

The normal retirement provided by the plan is the largest of (1), (2) or (3) below, then reduced by (4).

- (1) 1.2% of average earnings times years of credited service plus \$240.
- (2) \$72.00 per year for each of the first 10 years of credited service, \$108.00 per year for each of the next 10 years of credited service, and \$144.00 per year for each year of credited service over 20, plus 10% of average earnings reduced by 1% for each year credited service is less than eight years, plus \$144.00.
- (3) 1.5% of average earnings times years of credited service less the product of:
 - (a) The estimated Social Security benefit based on the law in effect at retirement assumed to commence at the later of retirement or age 62; and
 - (b) A factor of 1.5% times credited service, not greater than 50% of the maximum offset based on IRS integration rules.
- (4) The benefit accrued under the Union Carbide Corporation Plan for credited service to February 25, 1991 including up to a 6% increase in average earnings to January 31, 1995.

Form of Retirement Income

The monthly pension benefit is payable as a reduced joint and 50% to survivor annuity, if the employee has an eligible spouse. If not, or if the employee so elects, the full formula benefit is payable for life.

Early Retirement Benefit

Annual pension benefit determined as of early retirement date, reduced 5/12 of 1% for each month between the commencement of payment and the date first eligible to receive an unreduced benefit. If participant has attained age 65 or age 62 with 10 years of credited service, or age 60 with 30 years of credited service, or has attained age 50 and the sum of age plus credited service is at least 85, the benefit is not reduced.

If the earliest date of unreduced retirement is based on the Rule of 85, the number of months of reduction is based on the difference between 85 and sum of age plus

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

credited service on the early retirement date. Refer to the definition of Credited Service above.

Disability Benefit

Annual disability benefit payable upon becoming disabled until attainment of age 65. At age 65, annual accrued pension benefit based on credited service accruing to age 65 if on an approved disability under the LTD plan. Refer to the definition of Credited Service above.

Deferred Vested Benefit

Annual pension benefit determined as of termination date, reduced 6% each of the first three years and 5% for each additional year payments commence prior to NRD.

Survivor Benefit

50% of the annual pension benefit which would have been payable had the employee retired at date of death, but not less than 25% of the annual pension accrued at date of death.

Additional Information

The above description is a summary only; for additional details, reference should be made to the formal Plan document.

Plan Changes Since the Prior Year

The funding, financial accounting, and plan reporting valuations do not reflect any plan changes.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

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

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

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Schedule SB, line 24—Change in Actuarial Assumptions

The funding valuation reflects the following assumption changes:

- A change in the assumed expenses paid from the trust from \$1,282,000 to \$1,021,000. This change was made to reflect updated administrative expenses (including updated PBGC premiums for the current year).

Schedule SB Attachment (Form 5500)—2018 Plan Year
 Graftech International Holdings, Inc. Retirement Plan
 EIN: 06-1249029 PN: 001

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

Attained Age	Number of Participants Years of Credited Service									
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+
<25										
25-29										
30-34										
35-39										
40-44										
45-49					1					
50-54						1		3		
55-59					1		2	1	3	
60-64								2	2	5
65-69										1
70+										

N-22

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Schedule SB, line 19—Discounted Employer Contributions

Year applied for contributions: 2018

Date	Amount	Days to Discount to 1/1/2018 at 5.54%	Interest Adjusted Contribution
April 13, 2018	\$ 253,800	102	\$ 250,004
July 13, 2018	253,800	193	246,666
October 15, 2018	253,800	287	243,264
January 15, 2019	253,800	379	239,981
Total Contribution	\$ 1,015,200		\$ 979,915

Schedule SB Attachment (Form 5500)—2018 Plan Year
 Graftech International Holdings, Inc. Retirement Plan
 EIN: 06-1249029 PN: 001

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

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

(a) Age	(b) Rate	(c) Weight	(d) Product (a) × (b) × (c)
50	3.00%	1.0000	1.50
51	3.00%	0.9700	1.48
52	3.00%	0.9409	1.47
53	3.00%	0.9127	1.45
54	3.00%	0.8853	1.43
55	2.00%	0.8587	0.94
56	2.00%	0.8416	0.94
57	2.00%	0.8247	0.94
58	2.00%	0.8082	0.94
59	7.00%	0.7921	3.27
60	7.00%	0.7366	3.09
61	10.00%	0.6851	4.18
62	15.00%	0.6166	5.73
63	12.00%	0.5241	3.96
64	15.00%	0.4612	4.43
65	50.00%	0.3920	12.74
66	30.00%	0.1960	3.88
67	30.00%	0.1372	2.76
68	30.00%	0.0960	1.96
69	30.00%	0.0672	1.39
70	100.00%	0.0471	3.29
Weighted Average			62

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Schedule SB, Part V—Summary of Plan Provisions

The following summary describes plan provisions assumed in calculating the cost of your pension plan

Effective Date	February 25, 1991
Participation	Date of employment,
Covered Employees	All U.S. Employees
Credited Service	Years and months of employment (including service with Union Carbide Corporation).

For benefit accrual purposes: On January 1, 2002, the active population was split into a grandfathered group with credited service continuing until January 1, 2007, a non-grandfathered group where credited service stops as of January 1, 2002, and a Union group that continues to accrue credited service as usual. On March 31, 2003, credited service for the grandfathered group was frozen. On April 30, 2003, the credited service for the Columbia location of the Union group was frozen. On July 31, 2003, the credited service for the Lawrenceburg location of the Union group was frozen.

For other eligibility purposes, including early retirement subsidies, all employment service (including service with Union Carbide Corporation) is considered. In addition, credited service for participants separating from GrafTech due to the divestitures of the Advanced Energy Technologies (AET) and GrafTech Advanced Graphite Materials (GAGM) businesses in 2017 will also include employment service with their respective acquiring companies following the divestiture.

Pensionable Pay	Base pay plus payments awarded under the annual or middle management incentive plans and a portion of Bonus II payments and profit sharing awards (up to 8% of base pay) under the alternative compensation program. Benefits in excess of the section 415 limits are provided under the Benefit Equalization Plan (BEP). The qualified plan does not recognize earnings in excess of \$200,000. Benefits attributable to pay in excess of the IRS pay limit are provided under the Supplemental Retirement Income Plan (SRIP). Benefits attributable to the impact of separate averaging of base and bonus are provided under the Executive Retirement Income Plan (ERIP).
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Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Final Average Monthly Compensation	The average of the highest three calendar years of pensionable pay during the 10-year period next preceding the date of retirement, termination or death. Final 36 months of pensionable earnings are used, if greater. Separate averaging of base and bonus is provided under ERIP.
Normal Retirement	First of month coinciding with or next following the attainment of age 65.
Early Retirement	A participant with 10 or more years of continuous employment and whose age is at least 50 is eligible for early retirement. Refer to the definition of Credited Service above.
Disability Retirement	Disability with 10 years of credited service. Disability must be total and permanent. Refer to the definition of Credited Service above.
Death Retirement	Death with 10 years of credited service. Refer to the definition of Credited Service above.
Vesting Schedule	100% after five years of service.

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Normal Retirement Benefit Amount

The normal retirement provided by the plan is the largest of (1), (2) or (3) below, then reduced by (4).

- (1) 1.2% of average earnings times years of credited service plus \$240.
- (2) \$72.00 per year for each of the first 10 years of credited service, \$108.00 per year for each of the next 10 years of credited service, and \$144.00 per year for each year of credited service over 20, plus 10% of average earnings reduced by 1% for each year credited service is less than eight years, plus \$144.00.
- (3) 1.5% of average earnings times years of credited service less the product of:
 - (a) The estimated Social Security benefit based on the law in effect at retirement assumed to commence at the later of retirement or age 62; and
 - (b) A factor of 1.5% times credited service, not greater than 50% of the maximum offset based on IRS integration rules.
- (4) The benefit accrued under the Union Carbide Corporation Plan for credited service to February 25, 1991 including up to a 6% increase in average earnings to January 31, 1995.

Form of Retirement Income

The monthly pension benefit is payable as a reduced joint and 50% to survivor annuity, if the employee has an eligible spouse. If not, or if the employee so elects, the full formula benefit is payable for life.

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Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

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Plan Name	Graftech International Holdings Inc. Retirement Plan
Plan Sponsor EIN	06-1249029
ERISA Plan No.	001
Plan Year End	12/31/2018

The required attachment noted below is included within the Accountant's Opinion attachment to the Form 5500 Schedule H, Part III, Line 4, which consists of the entire Audit report issued by the Plan's Independent Qualified Public Accountant (IQPA).

Form/Schedule	Line Item	Description
5500 Schedule H	Line 4i	Schedule of Assets Held at End of Year

Schedule SB Attachment (Form 5500)—2018 Plan Year
Graftech International Holdings, Inc. Retirement Plan
EIN: 06-1249029 PN: 001

Schedule SB, line 24—Change in Actuarial Assumptions

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