Form 5500-SF

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Short Form Annual Return/Report of Small Employee Benefit Plan

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

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

OMB Nos. 1210-0110
1210-0089

2022

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

A This return/report is for: [X] a single-employer plan [ ] a multiple-employer plan (not multiemployer) (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)

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

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

D If this is a retroactively adopted plan permitted by SECURE Act section 201, check here. . . . . ▶ [ ]

Part II Basic Plan Information—enter all requested information

1a Name of plan
NEW JOHNSONVILLE ELECTROLYTIC MANGANESE PLANT PENSION PLAN OF VIBRANTZ SPECIALTY PRODUCTS LLC

1b Three-digit plan number (PN) ▶ 006

1c Effective date of plan 01/01/1984

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)
VIBRANTZ SPECIALTY PRODUCTS LLC

15311 VANTAGE PARKWAY W., SUITE 350
HOUSTON, TX 77032

2b Employer Identification Number (EIN) 52-1272156

2c Sponsor's telephone number 713-955-5398

2d Business code (see instructions) 325300

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

3b Administrator's EIN

3c Administrator's telephone number

4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report.
a Sponsor's name PRINCE SPECIALTY PRODUCTS LLC
c Plan Name NEW JOHNSONVILLE ELECTROLYTIC MANGANESE PLANT OF PRINCE SPECIALTY PRODUCTS LLC

4b EIN 52-1272156

4d PN 006

5a Total number of participants at the beginning of the plan year	**5a**	94
b Total number of participants at the end of the plan year	**5b**	89
c Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**5c**	
d(1) Total number of active participants at the beginning of the plan year	**5d(1)**	27
d(2) Total number of active participants at the end of the plan year	**5d(2)**	24
e Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	**5e**	0

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

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including, if applicable, a Schedule SB or Schedule MB completed and signed by an enrolled actuary, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	10/13/2023	LAURA BARTON
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor

6a Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) [X] Yes [ ] No

b Are you claiming a waiver of the annual examination and report of an independent qualified public accountant (IQPA) under 29 CFR 2520.104-46? (See instructions on waiver eligibility and conditions.) [X] Yes [ ] No

If you answered "No" to either line 6a or line 6b, the plan cannot use Form 5500-SF and must instead use Form 5500.

c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (see ERISA section 4021)? [X] Yes [ ] No [ ] Not determined

If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 473719. (See instructions.)

Part III Financial Information

7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	8517583	6934416
b Total plan liabilities	7b		
c Net plan assets (subtract line 7b from line 7a)	7c	8517583	6934416
8 Income, Expenses, and Transfers for this Plan Year		**(a) Amount**	**(b) Total**
a Contributions received or receivable from: (1) Employers	8a(1)		
(2) Participants	8a(2)		
(3) Others (including rollovers)	8a(3)		
b Other income (loss)	8b	-1115859	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		-1115859
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	415525	
e Certain deemed and/or corrective distributions (see instructions)	8e		
f Administrative service providers (salaries, fees, commissions)	8f	51783	
g Other expenses	8g		
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		467308
i Net income (loss) (subtract line 8h from line 8c)	8i		-1583167
j Transfers to (from) the plan (see instructions)	8j		

Part IV Plan Characteristics

9a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristic Codes in the instructions:
1B 3H

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

Part V Compliance Questions

10 During the plan year:		Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? (See instructions and DOL's Voluntary Fiduciary Correction Program)	10a		X	
b Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 10a.)	10b		X	
c Was the plan covered by a fidelity bond?	10c	X		500000
d Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	10d		X	
e Were any fees or commissions paid to any brokers, agents, or other persons by an insurance carrier, insurance service, or other organization that provides some or all of the benefits under the plan? (See instructions.)	10e		X	
f Has the plan failed to provide any benefit when due under the plan?	10f		X	
g Did the plan have any participant loans? (If "Yes," enter amount as of year-end.)	10g		X	
h If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	10h			
i If 10h was answered "Yes," check the box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3	10i			

Part VI Pension Funding Compliance

11 Is this a defined benefit plan subject to minimum funding requirements? (If "Yes," see instructions and complete Schedule SB (Form 5500) and lines 11a and b below.) If this is a defined contribution pension plan, leave line 11 blank and complete line 12 below. ☒ Yes ☐ No

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

b **PBGC missed contribution reporting requirements.** If the plan is covered by PBGC and the amount reported on line 11a is greater than $0, has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:

☐ Yes.

☐ No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.

☐ No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.

☐ No. Other. Provide explanation _____

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

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

If you completed line 12a, complete lines 3, 9, and 10 of Schedule MB (Form 5500), and skip to line 13.

b Enter the minimum required contribution for this plan year	**12b**	
c Enter the amount contributed by the employer to the plan for this plan year	**12c**	
d Subtract the amount in line 12c from the amount in line 12b. Enter the result (enter a minus sign to the left of a negative amount)	**12d**	
e Will the minimum funding amount reported on line 12d be met by the funding deadline?		☐ Yes ☐ No ☐ N/A

Part VII Plan Terminations and Transfers of Assets

13a Has a resolution to terminate the plan been adopted in any plan year?		☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year	**13a**	
b Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?		☐ Yes ☒ No

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

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

SCHEDULE SB (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Single-Employer Defined Benefit Plan Actuarial Information

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

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

OMB No. 1210-0110

2022

This Form is Open to Public Inspection

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

▶ **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
NEW JOHNSONVILLE ELECTROLYTIC MANGANESE PLANT PENSION PLAN OF VIBRANTZ SPECIALTY PRODUCTS LLC

B Three-digit plan number (PN) ▶ 006

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
VIBRANTZ SPECIALTY PRODUCTS LLC

D Employer Identification Number (EIN)
52-1272156

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

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

Part I Basic Information

1 Enter the valuation date: Month 01 Day 01 Year 2022

2 Assets:

a Market value	**2a**	8519114
b Actuarial value	**2b**	8089587

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	58	3950126	3950126
b For terminated vested participants	9	230761	230761
c For active participants	27	2593471	2738833
d Total	94	6774358	6919720

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**	5.39 %
6 Target normal cost		
a Present value of current plan year accruals	**6a**	54714
b Expected plan-related expenses	**6b**	64761
c Total (line 6a + line 6b)	**6c**	119475

Statement by Enrolled Actuary

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

SIGN HERE

Signature of actuary — Date: 09/21/2023

DAVID M. ANDERSON — Type or print name of actuary

23-07493 — Most recent enrollment number

WILLIS TOWERS WATSON US LLC — Firm name

713-754-5400 — Telephone number (including area code)

811 LOUISIANA STREET
SUITE 2200
HOUSTON, TX 77002

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 10.52 %	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)		0
	b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of 5.56 %		0
	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		0
	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	116.90 %
15	Adjusted funding target attainment percentage	15	116.90 %
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	108.48 %
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls

18 Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
			Totals ► 18(b)	0	18(c) 0

19	Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:		
	a Contributions allocated toward unpaid minimum required contributions from prior years	19a	0
	b Contributions made to avoid restrictions adjusted to valuation date.	19b	0
	c Contributions allocated toward minimum required contribution for current year adjusted to valuation date.	19c	0

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☒ No

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

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

Liquidity shortfall as of end of quarter of this plan year

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

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

21 Discount rate:

a Segment rates:	1st segment: 4.75 %	2nd segment: 5.18 %	3rd segment: 5.92 %	☐ 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) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No

25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No

26 Demographic and benefit information

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

b Is the plan required to provide a projection of expected benefit payments? If "Yes," see instructions regarding required attachment ☐ Yes ☒ No

27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	**27**	

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

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

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):

a Target normal cost (line 6c)	**31a**	119475
b Excess assets, if applicable, but not greater than line 31a	**31b**	119475

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**	0

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

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

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

SCHEDULE SB ATTACHMENTS

Schedule SB, Line 26a
Schedule of Active Participant Data as of January 1, 2022

	Attained Years of Credited Service[1]										
Attained Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 25	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	2	0	0	0	0	0	2
45-49	0	0	0	0	0	2	0	0	0	0	2
50-54	0	0	0	0	3	2	0	3	0	0	8
55-59	0	0	0	0	2	1	2	3	2	0	10
60-64	0	0	0	0	0	0	0	1	0	1	2
65-69	0	0	0	0	0	0	0	0	1	2	3
70 & over	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	7	5	2	7	3	3	27

[1] Age and service for purposes of determining category are based on exact (not rounded) values.

Plan Name: The New Johnsonville Electrolytic Manganese Plant Pension Plan of Vibrantz Specialty Products, LLC
EIN / PN: 52-1272156/006
Plan Sponsor: Vibrantz Specialty Products, LLC
Valuation Date: January 1, 2022

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Statement of Actuarial Assumptions/Methods

Economic Assumptions

Interest rate basis

■ Applicable month	September
■ Interest rate basis	3-Segment Rates

Interest rates	**Reflecting Stabilization**	**Not Reflecting Stabilization**
■ First segment rate	4.75%	1.07%
■ Second segment rate	5.18%	2.68%
■ Third segment rate	5.92%	3.36%
■ Effective interest rate	5.39%	2.88%

Annual rates of increase

■ Compensation	Not applicable
■ Future Social Security wage bases	Not applicable
■ Statutory limits on compensation	None

Plan-related expenses

The amount included for plan-related expenses is $64,761. Plan-related expenses are assumed to equal non-PBGC administrative expenses from the prior year plus an estimate of the PBGC premiums for the current year that are paid from the trust.

SCHEDULE SB ATTACHMENTS

Demographic Assumptions

Inclusion date

The valuation date coincident with or next following the date on which the employee becomes a participant.

New or rehired employees

It was assumed there will be no new or rehired employees.

Mortality

Separate rates for non-annuitants (based on RP-2014 “Employees” table without collar or amount adjustments, adjusted backward to 2006 with MP-2014, and then projected forward with a static projection as specified in the regulations under §1.430(h)(3)-1 using Scale MP-2020) and annuitants (based on RP-2014 “Healthy Annuitants” table without collar or amount adjustments, adjusted backward to 2006 with MP-2014, and then projected forward with a static projection as specified in the regulations under §1.430(h)(3)-1 using Scale MP-2020).

Termination

Rates varying by age and gender.

Annual Rate of Withdrawal		
Attained Age	**Males**	**Females**
30	.034	.049
35	.024	.034
40	.013	.024
45	.007	.013
50	Nil	.007
55	Nil	Nil
60 & over	Nil	Nil

Disability

The rates at the following ages illustrate the incidence of disability assumed:

Annual Rate of Disability (per 1,000 lives)		
Attained Age	**Males**	**Females**
25	.93	.96
35	1.99	2.52
45	5.05	5.22
55	15.02	14.90

SCHEDULE SB ATTACHMENTS

Retirement

Rates varying by age and gender, average age 62.

The following rates have been utilized as the assumed incidence of retirement:

Attained Age	Rate
55	2%
56	2
57	3
58	5
59	5
60	10
61	10
62	45
63	45
64	45
65 & Older	100

Benefit commencement date:

- Preretirement death benefit — The later of the death of the active participant or the participant's early retirement date.
- Deferred vested benefit — The later of age 62 or termination of employment.
- Disability benefit — Upon disablement.
- Retirement benefit — Upon termination of employment.

Form of payment

50% of participants are assumed to elect a single life annuity and 50% of participants are assumed to elect a 75% joint and survivor annuity.

Marriage

85% of the population are assumed to be married. Male participants are assumed to be three years older than their spouses and female participants are assumed to be three years younger than their spouses.

SCHEDULE SB ATTACHMENTS

Plan compensation	Not applicable.
Timing of benefit payments	Annuity payments are payable monthly at the beginning of the month.
Maximum benefits and plan compensation increases	Accrued benefits projected to be paid in future years are limited to the maximum presently allowed under IRC §415. Plan compensation is limited to the maximum presently allowed under IRC §401(a)(17). No provision is made for future increases in the maximum annual benefit or compensation limit.

Methods

Valuation date	First day of plan year.
Funding target	Present value of accrued benefits as required by regulations under IRC §430.
Target normal cost	Present value of benefits expected to accrue during the plan year plus plan-related expenses expected to be paid from plan assets during the plan year as required by regulations under IRC §430.
Decrement timing	The approach used is called rounded middle of year (rounded MOY) decrement timing. Most events are assumed to occur at the middle of year during which the eligibility condition will be met, or the start/end date will occur. For death and disability decrements, the rate applied is based on the participant's rounded age (nearest integer age) at the beginning of the year, to align with the methodology generally used to create those rate tables. For retirement and withdrawal decrements: the age is generally the participant's rounded age at the middle of the year.

SCHEDULE SB ATTACHMENTS

Actuarial value of assets

Average of the fair market value of assets on the valuation date and the two immediately preceding valuation dates, adjusted for contributions, benefits, administrative expenses and expected earnings (with such expected earnings limited as described in IRS Notice 2009-22). The average asset value must be within 10% of market value, including discounted contributions receivable (discounted using the effective interest rate for the prior year plan year).

The method of computing the actuarial value of assets complies with rules governing the calculation of such values under the Pension Protection Act of 2006 (PPA). These rules produce smoothed values that reflect the underlying market value of plan assets but fluctuate less than the market value. As a result, the actuarial value of assets will be lower than the market value in some years and greater in other years. However, over the long term under PPA's smoothing rules, the method has a significant bias to produce an actuarial value of assets that is below the market value of assets.

Benefits not valued

All benefits described in the Plan Provisions section of this report were valued.

Sources of Data and Other Information

The plan sponsor furnished participant data as of 1/1/2022. Information on assets, contributions and plan provisions was supplied by the plan sponsor. Data and other information were reviewed for reasonableness and consistency, but no audit was performed. Based on discussions with the plan sponsor, assumptions or estimates were made when data were not available, and the data was adjusted to reflect any significant events that occurred between the date the data was collected and the measurement date. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations. No data adjustments were made, and we are unaware of any data adjustments made by the data provider.

Assumptions Rationale - Significant Economic Assumptions

Discount rate

The basis chosen was selected by the plan sponsor from among choices prescribed by law, all of which are based on observed market data over certain periods of time.

Plan-related expenses

As required by regulations, plan-related expenses are calculated by estimating the expenses to be paid from the trust during the coming year (including, for example, expected PBGC premiums and actuarial, accounting, legal, administration and trustee fees to be paid form the trust).

SCHEDULE SB ATTACHMENTS

Assumptions Rationale - Significant Demographic Assumptions

Healthy Mortality	Assumptions used for funding purposes are as prescribed by IRC §430(h).
Disabled Mortality	Assumptions used for funding purposes are as prescribed by IRC §430(h).
Termination	Termination rates were based on a published table for pension participants believed to have similar characteristics to the plan population. Gains and losses caused by termination patterns different than assumed are observed and monitored. Assumed termination rates differ by age and gender because of observed and expected differences in termination rates by gender. Termination rates for at-risk funding calculations are as required by IRC §430.
Disability	Disability rates were based on a published table for pension participants believed to have reasonably similar characteristics participating in pension plans with similar disability provisions. Gains and losses caused by disability patterns different than assumed are observed and monitored. Assumed disability rates differ by gender because of observed and expected differences in disability rates by gender.
Retirement	Retirement rates are based on plan sponsor expectations for the future with periodic monitoring of observed gains and losses caused by retirement patterns different than assumed. Retirement rates for at-risk funding calculations are as required by IRC §430.
Benefit commencement date for deferred benefits:	
■ Deferred vested benefit	Deferred vested participants are assumed to begin benefits at age 62 (or current age if later) because the plan's experience is not considered to be credible, but it has been observed and it is expected that many participants will retire and begin benefits when Social Security benefits are first available.

SCHEDULE SB ATTACHMENTS

Source of Prescribed Methods

Funding methods

The methods used for funding purposes as described in the Statement of Actuarial Assumptions/Methods including the method of determining plan assets, are “prescribed methods set by law”, as defined in the actuarial standards of practice (ASOPs). These methods are required by IRC §430 or were selected by the plan sponsor from a range of methods permitted by IRC §430.

Changes in Assumptions and Methods

Change in assumptions and methods since prior valuation

- The segment interest rates used to calculate the funding target and target normal cost were updated to the current valuation date as required by IRC §430.
- The mortality table used to calculate the funding target and target normal cost was updated to reflect the latest mortality projection scale, as required by guidance issued by IRS under IRC §430.

SCHEDULE SB ATTACHMENTS

Schedule SB – Statement by Enrolled Actuary

Plan Sponsor	Vibrantz Specialty Products, LLC
EIN/PN	52-1272156/006
Plan Name	The New Johnsonville Electrolytic Manganese Plant Pension Plan of Vibrantz Specialty Products, LLC
Valuation Date	January 1, 2022
Enrolled Actuary	David M. Anderson
Enrollment Number	23-07493

The actuarial assumptions that are not mandated by IRC § 430 and regulations, represent the enrolled actuary's best estimate of anticipated experience under the plan, subject to the following conditions:

The actuarial valuation, on which the information in this Schedule SB is based, has been prepared in reliance upon the employee and financial data furnished by the plan administrator and the trustee. The enrolled actuary has not made a rigorous check of the accuracy of this information but has accepted it after reviewing it and concluding it is reasonable in relation to similar information furnished in previous years. The amounts of contributions and dates paid shown in Item 18 of Schedule SB were listed in reliance on information provided by the plan administrator and/or trustee.

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

2022

This Form is Open to Public Inspection

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

▶ **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
THE NEW JOHNSONVILLE ELECTROLYTIC MANGANESE PLANT PENSION PLAN OF VIBRANTZ SPECIALITY PRODUCTS LLC

B Three-digit plan number (PN) ▶ 006

C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF
Vibrantz Specialty Products LLC

D Employer Identification Number (EIN)
52-1272156

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

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

Part I Basic Information

1 Enter the valuation date: Month 01 Day 01 Year 2022

2 Assets:

a Market value	**2a**	8,519,114
b Actuarial value	**2b**	8,089,587

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	58	3,950,126	3,950,126
b For terminated vested participants	9	230,761	230,761
c For active participants	27	2,593,471	2,738,833
d Total	94	6,774,358	6,919,720

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**	5.39%
6 Target normal cost		
a Present value of current plan year accruals	**6a**	54,714
b Expected plan-related expenses	**6b**	64,761
c Total (line 6a + line 6b)	**6c**	119,475

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

David M. Anderson

Signature of actuary

9/21/2023

Date

David M. Anderson

Type or print name of actuary

2307493

Most recent enrollment number

Willis Towers Watson US LLC

Firm name

713-754-5400

Telephone number (including area code)

811 Louisiana Street
Suite 2200
Houston TX 77002

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 10.52 %	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)		0
	b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of 5.56 %		0
	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		0
	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	116.90 %
15	Adjusted funding target attainment percentage	15	116.90 %
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	108.48 %
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage	17	%

Part IV Contributions and Liquidity Shortfalls

18 Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
			Totals ► 18(b)	0	18(c) 0

19	Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:		
	a Contributions allocated toward unpaid minimum required contributions from prior years	19a	0
	b Contributions made to avoid restrictions adjusted to valuation date	19b	0
	c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	0

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☒ No

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

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

Liquidity shortfall as of end of quarter of this plan year

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

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

21 Discount rate:

a Segment rates:

1st segment:	2nd segment:	3rd segment:	
4.75 %	5.18 %	5.92 %	☐ 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) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment ☐ Yes ☒ No

25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment ☐ Yes ☒ No

26 Demographic and benefit information

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

b Is the plan required to provide a projection of expected benefit payments? If "Yes," see instructions regarding required attachment ☐ Yes ☒ No

27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	**27**	

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

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

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):

a Target normal cost (line 6c)	**31a**	119,475
b Excess assets, if applicable, but not greater than line 31a	**31b**	119,475

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**	0

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

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

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

SCHEDULE SB ATTACHMENTS

Schedule SB – Statement by Enrolled Actuary

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Enrolled Actuary	David M. Anderson
Enrollment Number	23-07493

The actuarial assumptions that are not mandated by IRC § 430 and regulations, represent the enrolled actuary's best estimate of anticipated experience under the plan, subject to the following conditions:

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SCHEDULE SB ATTACHMENTS

Schedule SB, Line 22
Description of Weighted Average Retirement Age
as of January 1, 2022

The average retirement age for Line 22 was calculated by creating a hypothetical life table with retirement as the only decrement, and then computing the average retirement age for the table.

x	q_x^r	l_x	$_{x-55}p_{55}=l_x/l_{55}$	$q_x^r*l_x/l_{55}$	$x*q_x*l_x/l_{55}$
55	0.02	1,000,000	1.000000	0.020000	1.100000
56	0.02	980,000	0.980000	0.019600	1.097600
57	0.03	960,400	0.960400	0.028812	1.642284
58	0.05	931,588	0.931588	0.046579	2.701582
59	0.05	885,009	0.885009	0.044250	2.610750
60	0.10	840,758	0.840758	0.084076	5.044560
61	0.10	756,682	0.756682	0.075668	4.615748
62	0.45	681,014	0.681014	0.306456	19.000272
63	0.45	374,558	0.374558	0.168551	10.618713
64	0.45	206,007	0.206007	0.092703	5.932992
65	1.00	113,304	0.113304	0.113304	7.364760

Average age at retirement	61.729261
Rounded for Schedule SB Line 22	62

Plan Name:	The New Johnsonville Electrolytic Manganese Plant Pension Plan of Vibrantz Specialty Products, LLC
EIN / PN:	52-1272156/006
Plan Sponsor:	Vibrantz Specialty Products, LLC
Valuation Date:	January 1, 2022

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Statement of Actuarial Assumptions/Methods

Economic Assumptions

Interest rate basis

■ Applicable month	September
■ Interest rate basis	3-Segment Rates

Interest rates	**Reflecting Stabilization**	**Not Reflecting Stabilization**
■ First segment rate	4.75%	1.07%
■ Second segment rate	5.18%	2.68%
■ Third segment rate	5.92%	3.36%
■ Effective interest rate	5.39%	2.88%

Annual rates of increase

■ Compensation	Not applicable
■ Future Social Security wage bases	Not applicable
■ Statutory limits on compensation	None

Plan-related expenses

The amount included for plan-related expenses is $64,761. Plan-related expenses are assumed to equal non-PBGC administrative expenses from the prior year plus an estimate of the PBGC premiums for the current year that are paid from the trust.

SCHEDULE SB ATTACHMENTS

Demographic Assumptions

Inclusion date

The valuation date coincident with or next following the date on which the employee becomes a participant.

New or rehired employees

It was assumed there will be no new or rehired employees.

Mortality

Separate rates for non-annuitants (based on RP-2014 “Employees” table without collar or amount adjustments, adjusted backward to 2006 with MP-2014, and then projected forward with a static projection as specified in the regulations under §1.430(h)(3)-1 using Scale MP-2020) and annuitants (based on RP-2014 “Healthy Annuitants” table without collar or amount adjustments, adjusted backward to 2006 with MP-2014, and then projected forward with a static projection as specified in the regulations under §1.430(h)(3)-1 using Scale MP-2020).

Termination

Rates varying by age and gender.

Annual Rate of Withdrawal		
Attained Age	**Males**	**Females**
30	.034	.049
35	.024	.034
40	.013	.024
45	.007	.013
50	Nil	.007
55	Nil	Nil
60 & over	Nil	Nil

Disability

The rates at the following ages illustrate the incidence of disability assumed:

Annual Rate of Disability (per 1,000 lives)		
Attained Age	**Males**	**Females**
25	.93	.96
35	1.99	2.52
45	5.05	5.22
55	15.02	14.90

SCHEDULE SB ATTACHMENTS

Retirement

Rates varying by age and gender, average age 62.

The following rates have been utilized as the assumed incidence of retirement:

Attained Age	Rate
55	2%
56	2
57	3
58	5
59	5
60	10
61	10
62	45
63	45
64	45
65 & Older	100

Benefit commencement date:

- Preretirement death benefit — The later of the death of the active participant or the participant's early retirement date.
- Deferred vested benefit — The later of age 62 or termination of employment.
- Disability benefit — Upon disablement.
- Retirement benefit — Upon termination of employment.

Form of payment

50% of participants are assumed to elect a single life annuity and 50% of participants are assumed to elect a 75% joint and survivor annuity.

Marriage

85% of the population are assumed to be married. Male participants are assumed to be three years older than their spouses and female participants are assumed to be three years younger than their spouses.

SCHEDULE SB ATTACHMENTS

Plan compensation	Not applicable.
Timing of benefit payments	Annuity payments are payable monthly at the beginning of the month.
Maximum benefits and plan compensation increases	Accrued benefits projected to be paid in future years are limited to the maximum presently allowed under IRC §415. Plan compensation is limited to the maximum presently allowed under IRC §401(a)(17). No provision is made for future increases in the maximum annual benefit or compensation limit.

Methods

Valuation date	First day of plan year.
Funding target	Present value of accrued benefits as required by regulations under IRC §430.
Target normal cost	Present value of benefits expected to accrue during the plan year plus plan-related expenses expected to be paid from plan assets during the plan year as required by regulations under IRC §430.
Decrement timing	The approach used is called rounded middle of year (rounded MOY) decrement timing. Most events are assumed to occur at the middle of year during which the eligibility condition will be met, or the start/end date will occur. For death and disability decrements, the rate applied is based on the participant's rounded age (nearest integer age) at the beginning of the year, to align with the methodology generally used to create those rate tables. For retirement and withdrawal decrements: the age is generally the participant's rounded age at the middle of the year.

SCHEDULE SB ATTACHMENTS

Actuarial value of assets

Average of the fair market value of assets on the valuation date and the two immediately preceding valuation dates, adjusted for contributions, benefits, administrative expenses and expected earnings (with such expected earnings limited as described in IRS Notice 2009-22). The average asset value must be within 10% of market value, including discounted contributions receivable (discounted using the effective interest rate for the prior year plan year).

The method of computing the actuarial value of assets complies with rules governing the calculation of such values under the Pension Protection Act of 2006 (PPA). These rules produce smoothed values that reflect the underlying market value of plan assets but fluctuate less than the market value. As a result, the actuarial value of assets will be lower than the market value in some years and greater in other years. However, over the long term under PPA's smoothing rules, the method has a significant bias to produce an actuarial value of assets that is below the market value of assets.

Benefits not valued

All benefits described in the Plan Provisions section of this report were valued.

Sources of Data and Other Information

The plan sponsor furnished participant data as of 1/1/2022. Information on assets, contributions and plan provisions was supplied by the plan sponsor. Data and other information were reviewed for reasonableness and consistency, but no audit was performed. Based on discussions with the plan sponsor, assumptions or estimates were made when data were not available, and the data was adjusted to reflect any significant events that occurred between the date the data was collected and the measurement date. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations. No data adjustments were made, and we are unaware of any data adjustments made by the data provider.

Assumptions Rationale - Significant Economic Assumptions

Discount rate

The basis chosen was selected by the plan sponsor from among choices prescribed by law, all of which are based on observed market data over certain periods of time.

Plan-related expenses

As required by regulations, plan-related expenses are calculated by estimating the expenses to be paid from the trust during the coming year (including, for example, expected PBGC premiums and actuarial, accounting, legal, administration and trustee fees to be paid form the trust).

SCHEDULE SB ATTACHMENTS

Assumptions Rationale - Significant Demographic Assumptions

Healthy Mortality	Assumptions used for funding purposes are as prescribed by IRC §430(h).
Disabled Mortality	Assumptions used for funding purposes are as prescribed by IRC §430(h).
Termination	Termination rates were based on a published table for pension participants believed to have similar characteristics to the plan population. Gains and losses caused by termination patterns different than assumed are observed and monitored. Assumed termination rates differ by age and gender because of observed and expected differences in termination rates by gender. Termination rates for at-risk funding calculations are as required by IRC §430.
Disability	Disability rates were based on a published table for pension participants believed to have reasonably similar characteristics participating in pension plans with similar disability provisions. Gains and losses caused by disability patterns different than assumed are observed and monitored. Assumed disability rates differ by gender because of observed and expected differences in disability rates by gender.
Retirement	Retirement rates are based on plan sponsor expectations for the future with periodic monitoring of observed gains and losses caused by retirement patterns different than assumed. Retirement rates for at-risk funding calculations are as required by IRC §430.
Benefit commencement date for deferred benefits:	
■ Deferred vested benefit	Deferred vested participants are assumed to begin benefits at age 62 (or current age if later) because the plan's experience is not considered to be credible, but it has been observed and it is expected that many participants will retire and begin benefits when Social Security benefits are first available.

SCHEDULE SB ATTACHMENTS

Source of Prescribed Methods

Funding methods

The methods used for funding purposes as described in the Statement of Actuarial Assumptions/Methods including the method of determining plan assets, are “prescribed methods set by law”, as defined in the actuarial standards of practice (ASOPs). These methods are required by IRC §430 or were selected by the plan sponsor from a range of methods permitted by IRC §430.

Changes in Assumptions and Methods

Change in assumptions and methods since prior valuation

- The segment interest rates used to calculate the funding target and target normal cost were updated to the current valuation date as required by IRC §430.
- The mortality table used to calculate the funding target and target normal cost was updated to reflect the latest mortality projection scale, as required by guidance issued by IRS under IRC §430.

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Summary of Plan Provisions

Plan Provisions

Amended and restated effective January 1, 2017. The plan was amended in 2019 to provide a limited opportunity for certain terminated vested participants to take their benefit in the form of a lump sum distribution.

Coverage and participation	Each hourly rated employee at the New Johnsonville plant actively employed within the Bargaining Unit participates immediately upon the attainment of age 21. An employee who was not a participant on December 31, 2005 shall not be eligible to participate.
Plan year	The twelve-month period ending December 31.

Definitions

Continuous service	One year is credited for each computation period during which the employee completes 1,000 hours. Such service shall be credited for eligibility and vesting purposes.
Benefit service	For purposes of accruing benefits, all continuous service shall be credited, with service during the last fractional year credited at a rate of 1/12th year for each 173 hours of service.
Average earnings	Not applicable.
Normal retirement date (NRD)	The later of age 62 and fifth anniversary of plan participation.

SCHEDULE SB ATTACHMENTS

Accrued normal retirement benefit

A monthly pension, if paid on a straight-life basis, equal to years of Benefit Service (with applicable maximum) multiplied by the appropriate benefit unit.

Date of Retirement	Benefit Unit	Benefit Service Max.
Prior to 7/1/1986	$10.00	30
7/1/86 through 6/30/89	12.00	30
7/1/89 through 6/30/91	16.00	30
7/1/91 through 6/30/92	17.00	30
7/1/92 through 6/30/93	18.00	30
7/1/93 through 6/30/97	19.00	30
7/1/97 through 6/30/98	23.00	33-1/3
7/1/98 through 6/30/99	25.00	33-1/3
7/1/99 through 6/30/00	26.00	33-1/3
7/1/00 through 6/30/01	27.00	33-1/3
7/1/01 through 6/30/02	29.00	33-1/3
7/1/02 through 6/30/03	30.00	33-1/3
After 7/1/03	31.00	33-1/3

An employee rehired after January 1, 2006 shall only receive the accrued benefit earned prior to January 1, 2006.

Eligibility for Benefits

Normal retirement

Retirement on NRD.

Early retirement

Retirement before NRD and on or after both attaining age 55 with 10 years of Continuous Service.

Vested termination

Termination for reasons other than death or retirement after completing 5 years of Credited Service.

Disability

Upon total and permanent disability after 10 years of Continuous Service.

Preretirement death benefit

The surviving spouse is eligible upon the death of an employee after five years of Continuous Service.

SCHEDULE SB ATTACHMENTS

Benefits Paid Upon the Following Events

Normal retirement The accrued normal retirement benefit paid at NRD.

Early retirement The accrued normal retirement benefit is payable at age 62 or, alternatively, payable immediately in a reduced amount as follows:

Age	Early Retirement Factor
55	0.55
56	0.60
57	0.65
58	0.71
59	0.77
60	0.84
61	0.92
62	1.00

Vested termination The accrued normal retirement benefit is payable at age 62 or, if the employee has at least 10 years of Continuous Service, payable as early as age 55 reduced by the Plan's early retirement factors (above) prior to age 62.

Disablement The accrued normal retirement benefit is payable immediately.

Preretirement death If the employee dies while eligible for early retirement, the surviving spouse will receive 50% of the benefit that would have been paid if the employee had retired on the day prior to his death and elected a 50% Joint & Survivor benefit. If death occurs prior to eligibility for early retirement, the surviving spouse will receive the benefit that would have been paid had the employee terminated on the day of his death, survived to the earliest age for retirement, retired under the 50% Joint & Survivor option, and then died.

SCHEDULE SB ATTACHMENTS

Other Plan Provisions

Forms of payment	An employee may elect to receive his benefit on a straight-life basis or on an actuarially equivalent 50%, 75% or 100% Joint and Survivor basis. Unless otherwise elected, any benefit payable under the Plan shall be paid on a 50% Joint and Survivor basis, if the employee is then married or on a straight-life basis otherwise. If the present value of the retirement benefit does not exceed $15,000, it may be paid in a lump sum. Actuarial equivalence is based on the RP-2000 Blended Table and 6.00% interest except for lump sums which are based on 417(e) applicable interest rates and mortality.
Maximum on benefits and pay	All benefits and pay for any calendar year may not exceed the maximum limitations for that year as defined in the Internal Revenue Code. The plan provides for increasing the dollar limits automatically as such changes become effective. Increases in the dollar limits are not assumed for determining contributions.
Special early retirement window period	An early retirement window was implemented, with retirements effective September 1, 2003 and July 1, 2004. Unreduced benefits and supplements payable prior to age 62 were the main provisions of the program.

Future Plan Changes

No future plan changes were recognized in determining minimum and maximum contributions.

Changes in Benefits Valued Since Prior Year

There have been no changes in benefits valued since the prior valuation.

SCHEDULE SB ATTACHMENTS

Schedule SB, Line 26a
Schedule of Active Participant Data as of January 1, 2022

	Attained Years of Credited Service[1]										
Attained Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 25	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	2	0	0	0	0	0	2
45-49	0	0	0	0	0	2	0	0	0	0	2
50-54	0	0	0	0	3	2	0	3	0	0	8
55-59	0	0	0	0	2	1	2	3	2	0	10
60-64	0	0	0	0	0	0	0	1	0	1	2
65-69	0	0	0	0	0	0	0	0	1	2	3
70 & over	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	7	5	2	7	3	3	27

[1] Age and service for purposes of determining category are based on exact (not rounded) values.

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Valuation Date: January 1, 2022

SCHEDULE SB ATTACHMENTS

Schedule SB, Line 22
Description of Weighted Average Retirement Age
as of January 1, 2022

The average retirement age for Line 22 was calculated by creating a hypothetical life table with retirement as the only decrement, and then computing the average retirement age for the table.

x	q_x^r	l_x	$_{x-55}p_{55}=l_x/l_{55}$	$q_x^r*l_x/l_{55}$	$x*q_x*l_x/l_{55}$
55	0.02	1,000,000	1.000000	0.020000	1.100000
56	0.02	980,000	0.980000	0.019600	1.097600
57	0.03	960,400	0.960400	0.028812	1.642284
58	0.05	931,588	0.931588	0.046579	2.701582
59	0.05	885,009	0.885009	0.044250	2.610750
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62	0.45	681,014	0.681014	0.306456	19.000272
63	0.45	374,558	0.374558	0.168551	10.618713
64	0.45	206,007	0.206007	0.092703	5.932992
65	1.00	113,304	0.113304	0.113304	7.364760

Average age at retirement	61.729261
Rounded for Schedule SB Line 22	62

Plan Name:	The New Johnsonville Electrolytic Manganese Plant Pension Plan of Vibrantz Specialty Products, LLC
EIN / PN:	52-1272156/006
Plan Sponsor:	Vibrantz Specialty Products, LLC
Valuation Date:	January 1, 2022

SCHEDULE SB ATTACHMENTS

Schedule SB, Part V
Summary of Plan Provisions

Plan Provisions

Amended and restated effective January 1, 2017. The plan was amended in 2019 to provide a limited opportunity for certain terminated vested participants to take their benefit in the form of a lump sum distribution.

Coverage and participation	Each hourly rated employee at the New Johnsonville plant actively employed within the Bargaining Unit participates immediately upon the attainment of age 21. An employee who was not a participant on December 31, 2005 shall not be eligible to participate.
Plan year	The twelve-month period ending December 31.

Definitions

Continuous service	One year is credited for each computation period during which the employee completes 1,000 hours. Such service shall be credited for eligibility and vesting purposes.
Benefit service	For purposes of accruing benefits, all continuous service shall be credited, with service during the last fractional year credited at a rate of 1/12th year for each 173 hours of service.
Average earnings	Not applicable.
Normal retirement date (NRD)	The later of age 62 and fifth anniversary of plan participation.

SCHEDULE SB ATTACHMENTS

Accrued normal retirement benefit

A monthly pension, if paid on a straight-life basis, equal to years of Benefit Service (with applicable maximum) multiplied by the appropriate benefit unit.

Date of Retirement	Benefit Unit	Benefit Service Max.
Prior to 7/1/1986	$10.00	30
7/1/86 through 6/30/89	12.00	30
7/1/89 through 6/30/91	16.00	30
7/1/91 through 6/30/92	17.00	30
7/1/92 through 6/30/93	18.00	30
7/1/93 through 6/30/97	19.00	30
7/1/97 through 6/30/98	23.00	33-1/3
7/1/98 through 6/30/99	25.00	33-1/3
7/1/99 through 6/30/00	26.00	33-1/3
7/1/00 through 6/30/01	27.00	33-1/3
7/1/01 through 6/30/02	29.00	33-1/3
7/1/02 through 6/30/03	30.00	33-1/3
After 7/1/03	31.00	33-1/3

An employee rehired after January 1, 2006 shall only receive the accrued benefit earned prior to January 1, 2006.

Eligibility for Benefits

Normal retirement

Retirement on NRD.

Early retirement

Retirement before NRD and on or after both attaining age 55 with 10 years of Continuous Service.

Vested termination

Termination for reasons other than death or retirement after completing 5 years of Credited Service.

Disability

Upon total and permanent disability after 10 years of Continuous Service.

Preretirement death benefit

The surviving spouse is eligible upon the death of an employee after five years of Continuous Service.

SCHEDULE SB ATTACHMENTS

Benefits Paid Upon the Following Events

Normal retirement The accrued normal retirement benefit paid at NRD.

Early retirement The accrued normal retirement benefit is payable at age 62 or, alternatively, payable immediately in a reduced amount as follows:

Age	Early Retirement Factor
55	0.55
56	0.60
57	0.65
58	0.71
59	0.77
60	0.84
61	0.92
62	1.00

Vested termination The accrued normal retirement benefit is payable at age 62 or, if the employee has at least 10 years of Continuous Service, payable as early as age 55 reduced by the Plan's early retirement factors (above) prior to age 62.

Disablement The accrued normal retirement benefit is payable immediately.

Preretirement death If the employee dies while eligible for early retirement, the surviving spouse will receive 50% of the benefit that would have been paid if the employee had retired on the day prior to his death and elected a 50% Joint & Survivor benefit. If death occurs prior to eligibility for early retirement, the surviving spouse will receive the benefit that would have been paid had the employee terminated on the day of his death, survived to the earliest age for retirement, retired under the 50% Joint & Survivor option, and then died.

SCHEDULE SB ATTACHMENTS

Other Plan Provisions

Forms of payment	An employee may elect to receive his benefit on a straight-life basis or on an actuarially equivalent 50%, 75% or 100% Joint and Survivor basis. Unless otherwise elected, any benefit payable under the Plan shall be paid on a 50% Joint and Survivor basis, if the employee is then married or on a straight-life basis otherwise. If the present value of the retirement benefit does not exceed $15,000, it may be paid in a lump sum. Actuarial equivalence is based on the RP-2000 Blended Table and 6.00% interest except for lump sums which are based on 417(e) applicable interest rates and mortality.
Maximum on benefits and pay	All benefits and pay for any calendar year may not exceed the maximum limitations for that year as defined in the Internal Revenue Code. The plan provides for increasing the dollar limits automatically as such changes become effective. Increases in the dollar limits are not assumed for determining contributions.
Special early retirement window period	An early retirement window was implemented, with retirements effective September 1, 2003 and July 1, 2004. Unreduced benefits and supplements payable prior to age 62 were the main provisions of the program.

Future Plan Changes

No future plan changes were recognized in determining minimum and maximum contributions.

Changes in Benefits Valued Since Prior Year

There have been no changes in benefits valued since the prior valuation.