UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2023

Commission file number 1-32737

KOPPERS HOLDINGS INC.

(Exact name of registrant as specified in its charter)

Pennsylvania	20-1878963
(State of incorporation)	(IRS Employer Identification No.)

436 Seventh Avenue
Pittsburgh, Pennsylvania 15219
(Address of principal executive offices)

(412) 227-2001
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act.

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	KOP	The New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Common Stock, par value $0.01 per share, outstanding at July 31, 2023 amounted to 20,872,244 shares.

PART I—FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

KOPPERS HOLDINGS INC.
CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)

	Three Months Ended June 30,		*Six Months Ended June 30,*	
	2023	*2022*	*2023*	*2022*
(Dollars in millions, except per share amounts)	*(Unaudited)*	*(Unaudited)*	*(Unaudited)*	*(Unaudited)*
Net sales	$ 577.2	$ 502.5	$ 1,090.6	$ 961.8
Cost of sales	464.7	419.4	874.0	789.7
Depreciation and amortization	14.4	13.4	28.4	27.6
(Gain) on sale of assets	0.0	0.0	(1.8)	(2.5)
Selling, general and administrative expenses	43.7	40.6	85.3	79.7
Operating profit	54.4	29.1	104.7	67.3
Other income, net	0.2	0.4	0.0	1.0
Interest expense	20.3	11.1	34.3	20.9
Income from continuing operations before income taxes	34.3	18.4	70.4	47.4
Income tax provision	9.9	6.8	19.8	16.5
Income from continuing operations	24.4	11.6	50.6	30.9
Loss on sale of discontinued operations	0.0	0.0	0.0	(0.5)
Net income	24.4	11.6	50.6	30.4
Net income (loss) attributable to noncontrolling interests	(0.1)	(0.1)	0.6	(0.1)
Net income attributable to Koppers	$ 24.5	$ 11.7	$ 50.0	$ 30.5
Earnings (loss) per common share attributable to Koppers common shareholders:				
Basic -				
Continuing operations	$ 1.17	$ 0.56	$ 2.40	$ 1.47
Discontinued operations	0.00	0.00	0.00	(0.02)
Earnings per basic common share	$ 1.17	$ 0.56	$ 2.40	$ 1.45
Diluted -				
Continuing operations	$ 1.15	$ 0.55	$ 2.34	$ 1.44
Discontinued operations	0.00	0.00	0.00	(0.02)
Earnings per diluted common share	$ 1.15	$ 0.55	$ 2.34	$ 1.42
Comprehensive income (loss)	$ 18.7	$ (38.8)	$ 52.6	$ (18.4)
Comprehensive income (loss) attributable to noncontrolling interests	(0.3)	(0.2)	0.4	(0.3)
Comprehensive income (loss) attributable to Koppers	$ 19.0	$ (38.6)	$ 52.2	$ (18.1)
Weighted average shares outstanding (in thousands):				
Basic	20,843	21,026	20,842	21,088
Diluted	21,351	21,239	21,366	21,472

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

KOPPERS HOLDINGS INC.
CONDENSED CONSOLIDATED BALANCE SHEET

		June 30, 2023		December 31, 2022
(Dollars in millions, except per share amounts)		*(Unaudited)*		
Assets				
Cash and cash equivalents	$	48.2	$	33.3
Accounts receivable, net of allowance of $3.4 and $3.5		258.3		215.7
Inventories, net		373.1		355.7
Derivative contracts		3.7		3.1
Other current assets		30.2		29.0
Total current assets		713.5		636.8
Property, plant and equipment, net		594.9		557.3
Operating lease right-of-use assets		84.1		86.3
Goodwill		293.8		294.0
Intangible assets, net		108.9		116.1
Deferred tax assets		11.3		11.7
Other assets		9.2		9.2
Total assets	$	1,815.7	$	1,711.4
Liabilities				
Accounts payable	$	195.0	$	207.4
Accrued liabilities		73.4		96.1
Current operating lease liabilities		21.7		20.5
Current maturities of long-term debt		4.0		0.0
Total current liabilities		294.1		324.0
Long-term debt		902.2		817.7
Accrued postretirement benefits		35.3		34.7
Deferred tax liabilities		22.0		21.5
Operating lease liabilities		62.5		66.3
Other long-term liabilities		43.0		44.2
Total liabilities		1,359.1		1,308.4
Commitments and contingent liabilities (Note 16)				
Equity				
Senior Convertible Preferred Stock, $0.01 par value per share; 10,000,000 shares authorized; no shares issued		0.0		0.0
Common Stock, $0.01 par value per share; 80,000,000 shares authorized; 24,837,622 and 24,547,000 shares issued		0.2		0.2
Additional paid-in capital		273.7		263.9
Retained earnings		407.3		360.2
Accumulated other comprehensive loss		(95.1)		(97.3)
Treasury stock, at cost, 3,965,378 and 3,783,901 shares		(133.5)		(127.6)
Total Koppers shareholders' equity		452.6		399.4
Noncontrolling interests		4.0		3.6
Total equity		456.6		403.0
Total liabilities and equity	$	1,815.7	$	1,711.4

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

KOPPERS HOLDINGS INC.
CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS

	Six Months Ended June 30,	
	2023	2022
(Dollars in millions)	*(Unaudited)*	*(Unaudited)*
Cash provided by (used in) operating activities:		
Net income	$ 50.6	$ 30.4
Adjustments to reconcile net cash used in operating activities:		
Depreciation and amortization	28.4	27.6
Stock-based compensation	7.8	6.7
Change in derivative contracts	0.0	7.1
Non-cash interest expense	3.3	1.7
(Gain) on sale of assets	(1.8)	(2.6)
Insurance proceeds	(0.1)	(0.7)
Deferred income taxes	0.9	0.6
Change in other liabilities	(0.9)	(1.0)
Other - net	0.7	5.8
Changes in working capital:		
Accounts receivable	(41.8)	(52.3)
Inventories	(17.2)	(19.6)
Accounts payable	(7.5)	28.0
Accrued liabilities	(18.7)	(7.9)
Other working capital	(5.8)	(2.6)
Net cash (used in) provided by operating activities	(2.1)	21.2
Cash (used in) provided by investing activities:		
Capital expenditures	(62.6)	(55.8)
Insurance proceeds received	0.1	0.7
Cash provided by sale of assets	1.9	4.0
Net cash used in investing activities	(60.6)	(51.1)
Cash provided by (used in) financing activities:		
Net increase in credit facility borrowings	203.1	55.0
Borrowings of long-term debt	388.0	0.0
Repayments of long-term debt	(501.0)	(2.0)
Issuances of Common Stock	1.8	0.7
Repurchases of Common Stock	(5.9)	(18.5)
Payment of debt issuance costs	(4.9)	(4.6)
Dividends paid	(2.5)	(2.1)
Net cash provided by financing activities	78.6	28.5
Effect of exchange rate changes on cash	(1.0)	(3.7)
Net increase (decrease) in cash and cash equivalents	14.9	(5.1)
Cash and cash equivalents at beginning of period	33.3	45.5
Cash and cash equivalents at end of period	$ 48.2	$ 40.4
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflow from operating leases	$ 14.4	$ 14.6
Supplemental disclosure of non-cash investing and financing activities:		
Right-of-use assets obtained in exchange for new operating lease liabilities	$ 8.6	$ 6.3
Accrued capital expenditures	6.0	8.2

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

1. Basis of Presentation

The accompanying unaudited condensed consolidated financial statements and related disclosures have been prepared in accordance with accounting principles generally accepted in the United States applicable to interim financial information and with the instructions to Form 10-Q and Rule 10-01 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments considered necessary for a fair presentation of Koppers Holdings Inc.'s and its subsidiaries' ("Koppers", "Koppers Holdings", the "Company", "we" or "us") financial position and interim results as of and for the periods presented have been included. All such adjustments are of a normal recurring nature unless disclosed otherwise. Because our business is seasonal, results for interim periods are not necessarily indicative of those that may be expected for a full year. The Condensed Consolidated Balance Sheet as of December 31, 2022 has been summarized from the audited balance sheet contained in the Annual Report on Form 10-K as of and for the year ended December 31, 2022. Certain prior period amounts in the condensed consolidated financial statements and notes to the condensed consolidated financial statements have been reclassified to conform to the current period's presentation.

The financial information included herein should be read in conjunction with our audited consolidated financial statements and related notes included in our Annual Report on Form 10-K for the year ended December 31, 2022.

2. New Accounting Pronouncements

In March 2022, the Financial Accounting Standards Board issued Accounting Standards Update ("ASU") No. 2022-01, "Derivatives and Hedging (Topic 815): Fair Value Hedging—Portfolio Layer Method." This ASU amends and simplifies existing guidance in order to allow companies to more accurately present the economic effects of risk management activities in financial statements. The adoption of this ASU in the first quarter of 2023 did not have a material impact on our financial statements as we principally utilize cash flow hedges.

3. Fair Value Measurements

The following table presents the carrying amounts and the related estimated fair values of our financial instruments:

	June 30, 2023		*December 31, 2022*	
	Fair Value	*Carrying Value*	*Fair Value*	*Carrying Value*
(Dollars in millions)				
Financial assets:				
Investments and other assets	$ 1.3	$ 1.3	$ 1.3	$ 1.3
Financial liabilities:				
Long-term debt	$ 927.4	$ 915.7	$ 801.1	$ 825.3

Investments and other assets – Represents the broker-quoted cash surrender value on universal life insurance policies. This asset is classified as Level 2 in the valuation hierarchy and is measured from values received from financial institutions.

Debt – The fair value of our Term Loan B (as defined in Note 12 – "Debt") is estimated based on the market prices for the same or similar issuances or on the current rates offered to us for debt of the same remaining maturities (Level 2). The fair value of our Credit Facility (as defined in Note 12 – "Debt") approximates carrying value due to the variable rate nature of this instrument. As of December 31, 2022, the fair value of our fixed-rate long-term debt was estimated based on the market prices for the same or similar issuances or on the current rates offered to us for debt of the same remaining maturities (Level 2).

See Note 15 – "Derivative Financial Instruments", for the fair value of our derivative financial instruments.

4. Comprehensive Income (Loss) and Equity

The following table presents total comprehensive income (loss):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
(Dollars in millions)				
Net income	$ 24.4	$ 11.6	$ 50.6	$ 30.4
Changes in other comprehensive income (loss):				
Currency translation adjustment	(2.2)	(26.5)	0.5	(20.7)
Unrealized gain (loss) on cash flow hedges, net of tax (expense) benefit of $1.5, $12.6, $(0.4) and $15.0	(3.8)	(24.4)	0.9	(28.7)
Unrecognized pension net loss, net of tax expense of $0.0, $0.0, $0.1 and $0.1	0.3	0.5	0.6	0.6
Comprehensive income (loss)	18.7	(38.8)	52.6	(18.4)
Comprehensive income (loss) attributable to noncontrolling interests	(0.3)	(0.2)	0.4	(0.3)
Comprehensive income (loss) attributable to Koppers	$ 19.0	$ (38.6)	$ 52.2	$ (18.1)

Amounts reclassified from accumulated other comprehensive loss to net income consist of amounts shown for changes in or amortization of unrecognized pension net loss. This component of accumulated other comprehensive loss is included in the computation of net periodic pension cost as disclosed in Note 11 – "Pensions and Post-Retirement Benefit Plans." Other amounts reclassified from accumulated other comprehensive income (loss) related to derivative financial instruments, net of tax, were $0.6 million and $11.1 million during the three months ended June 30, 2023 and 2022, respectively, and $2.3 million and $21.2 million during the six months ended June 30, 2023 and 2022, respectively.

The following tables present the changes in equity:

(Dollars in millions)	Common Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Noncontrolling Interests	Total Equity
Balance at March 31, 2023	$ 0.2	$ 269.2	$ 384.2	$ (89.6)	$ (133.4)	$ 4.3	$ 434.9
Net income (loss)	0.0	0.0	24.5	0.0	0.0	(0.1)	24.4
Dividends ($0.06 per share)	0.0	0.0	(1.4)	0.0	0.0	0.0	(1.4)
Issuance of common stock	0.0	0.6	0.0	0.0	0.0	0.0	0.6
Repurchases of common stock	0.0	0.0	0.0	0.0	(0.1)	0.0	(0.1)
Employee stock plans	0.0	3.9	0.0	0.0	0.0	0.0	3.9
Other comprehensive (loss) income							
Currency translation adjustment	0.0	0.0	0.0	(2.0)	0.0	(0.2)	(2.2)
Unrealized loss on cash flow hedges	0.0	0.0	0.0	(3.8)	0.0	0.0	(3.8)
Unrecognized pension net loss	0.0	0.0	0.0	0.3	0.0	0.0	0.3
Balance at June 30, 2023	$ 0.2	$ 273.7	$ 407.3	$ (95.1)	$ (133.5)	$ 4.0	$ 456.6

(Dollars in millions)		Common Stock		Additional Paid-In Capital		Retained Earnings		Accumulated Other Comprehensive Loss		Treasury Stock		Noncontrolling Interests		Total Equity
Balance at March 31, 2022	$	0.2	$	253.4	$	318.7	$	(38.3)	$	(115.1)	$	4.1	$	423.0
Net income		0.0		0.0		11.6		0.0		0.0		0.0		11.6
Dividends ($0.05 per share)		0.0		0.0		(1.0)		0.0		0.0		0.0		(1.0)
Issuance of common stock		0.0		0.3		0.0		0.0		0.0		0.0		0.3
Repurchases of common stock		0.0		0.0		0.0		0.0		(7.4)		0.0		(7.4)
Employee stock plans		0.0		3.3		0.0		0.0		0.0		0.0		3.3
Other comprehensive (loss) income														
Currency translation adjustment		0.0		0.0		0.0		(26.5)		0.0		(0.2)		(26.7)
Unrealized loss on cash flow hedges		0.0		0.0		0.0		(24.4)		0.0		0.0		(24.4)
Unrecognized pension net loss		0.0		0.0		0.0		0.5		0.0		0.0		0.5
Balance at June 30, 2022	$	0.2	$	257.0	$	329.3	$	(88.7)	$	(122.5)	$	3.9	$	379.2

(Dollars in millions)		Common Stock		Additional Paid-In Capital		Retained Earnings		Accumulated Other Comprehensive Loss		Treasury Stock		Noncontrolling Interests		Total Equity
Balance at December 31, 2022	$	0.2	$	263.9	$	360.2	$	(97.3)	$	(127.6)	$	3.6	$	403.0
Net income		0.0		0.0		50.0		0.0		0.0		0.6		50.6
Dividends ($0.12 per share)		0.0		0.0		(2.9)		0.0		0.0		0.0		(2.9)
Issuance of common stock		0.0		1.9		0.0		0.0		0.0		0.0		1.9
Repurchases of common stock		0.0		0.0		0.0		0.0		(5.9)		0.0		(5.9)
Employee stock plans		0.0		7.9		0.0		0.0		0.0		0.0		7.9
Other comprehensive (loss) income														
Currency translation adjustment		0.0		0.0		0.0		0.7		0.0		(0.2)		0.5
Unrealized gain on cash flow hedges		0.0		0.0		0.0		0.9		0.0		0.0		0.9
Unrecognized pension net loss		0.0		0.0		0.0		0.6		0.0		0.0		0.6
Balance at June 30, 2023	$	0.2	$	273.7	$	407.3	$	(95.1)	$	(133.5)	$	4.0	$	456.6

(Dollars in millions)	Common Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Noncontrolling Interests	Total Equity
Balance at December 31, 2021	$ 0.2	$ 249.5	$ 300.9	$ (40.0)	$ (104.0)	$ 4.2	$ 410.8
Net income (loss)	0.0	0.0	30.5	0.0	0.0	(0.1)	30.4
Dividends ($0.10 per share)	0.0	0.0	(2.1)	0.0	0.0	0.0	(2.1)
Issuance of common stock	0.0	0.7	0.0	0.0	0.0	0.0	0.7
Repurchases of common stock	0.0	0.0	0.0	0.0	(18.5)	0.0	(18.5)
Employee stock plans	0.0	6.8	0.0	0.0	0.0	0.0	6.8
Other comprehensive (loss) income							
Currency translation adjustment	0.0	0.0	0.0	(20.7)	0.0	(0.2)	(20.9)
Unrealized loss on cash flow hedges	0.0	0.0	0.0	(28.7)	0.0	0.0	(28.7)
Unrecognized pension net loss	0.0	0.0	0.0	0.6	0.0	0.0	0.6
Balance at June 30, 2022	$ 0.2	$ 257.0	$ 329.3	$ (88.7)	$ (122.5)	$ 3.9	$ 379.2

On August 2, 2023, we declared a quarterly dividend of $0.06 per common share, payable on September 11, 2023 to shareholders of record as of August 25, 2023.

5. Earnings per Common Share

The computation of basic earnings per common share for the periods presented is based upon the weighted average number of common shares outstanding during the periods. The computation of diluted earnings per common share includes the effect of non-vested nonqualified stock options and restricted stock units assuming such options and stock units were outstanding common shares at the beginning of the period. The effect of antidilutive securities is excluded from the computation of diluted loss per common share, if any.

The following table sets forth the computation of basic and diluted earnings per common share:

(Dollars in millions, except share amounts, in thousands)	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Net income attributable to Koppers	$ 24.5	$ 11.7	$ 50.0	$ 30.5
Less: Loss on sale of discontinued operations	0.0	0.0	0.0	(0.5)
Income from continuing operations attributable to Koppers	$ 24.5	$ 11.7	$ 50.0	$ 31.0
Weighted average common shares outstanding:				
Basic	20,843	21,026	20,842	21,088
Effect of dilutive securities	508	213	524	384
Diluted	21,351	21,239	21,366	21,472
Earnings per common share – continuing operations:				
Basic earnings per common share	$ 1.17	$ 0.56	$ 2.40	$ 1.47
Diluted earnings per common share	1.15	0.55	2.34	1.44
Other data:				
Antidilutive securities excluded from computation of diluted earnings per common share	494	1,077	619	1,058

6. Stock-based Compensation

We have outstanding stock-based compensation awards that were granted under the amended and restated 2005 Long-Term Incentive Plan (the "2005 LTIP"), the 2018 Long-Term Incentive Plan (the "2018 LTIP") and the 2020 Long-Term Incentive Plan, as amended (the "2020 LTIP") (collectively, the "LTIP"). The LTIP provides for the grant to eligible persons of stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, performance awards, dividend equivalents and other stock-based awards, which are collectively referred to as the "awards."

Restricted Stock Units and Performance Stock Units

Under the LTIP, the board of directors grants restricted stock units and performance stock units to certain employee participants (collectively, the "stock units"). Compensation expense for non-vested stock units is recorded over the vesting period based on the fair value at the date of grant. The fair value of restricted stock units is the market price of the underlying common stock on the date of grant. The fair value of performance stock units is determined using the market price of the underlying common stock on the date of grant for units with a performance condition and a Monte Carlo valuation model for units with a market condition.

For grants to most employees prior to 2023, the restricted stock units vest in four equal annual installments. Starting in 2023, most grants of restricted stock units vest in three years. Restricted stock units that have one-year vesting periods are also issued under the LTIP to members of the board of directors in connection with annual director compensation and, from time to time, are issued to employees with vesting periods of typically two years or less.

Performance stock units have vesting based upon either a performance condition or a market condition. Performance stock units granted with a performance condition have a cumulative three-year performance objective based on adjusted EBITDA (see Note 7 – "Segment Information"). For performance stock units granted with a market condition, which applies to all performance stock unit grants made prior to 2023, the applicable objective is based on our total shareholder return relative to the Standard & Poor's SmallCap 600 Materials Index and has multi-year performance objectives.

Both types of performance stock units have a three-year period for vesting. The number of performance stock units granted represents the target award and participants have the ability to earn between zero and 200 percent of the target award based upon actual performance. If minimum performance criteria are not achieved, no performance stock units will vest. We have the discretion to settle the award in cash rather than shares, although we currently expect that all awards will be settled by the issuance of shares.

We calculated the fair value of the performance stock unit awards with a market condition on the date of grant using the assumptions listed below:

	January 2023 Grant	*January 2022 Grant*	*January 2021 Grant*
Grant date price per share of performance award	$ 29.01	$ 32.19	$ 29.84
Expected volatility	66.30 %	66.90 %	68.70 %
Risk-free interest rate	4.11 %	1.10 %	0.16 %
Look-back period in years	3.00	3.00	3.00
Grant date fair value per share	$ 39.51	$ 45.19	$ 41.50

Dividends declared, if any, on our common stock during the period prior to vesting of the stock units are credited at equivalent value as additional stock units and become payable as additional common shares upon vesting. In the event of termination of employment, other than retirement, death or disability, any non-vested stock units are forfeited, including additional stock units credited from dividends. In the event of termination of employment due to retirement, death or disability, pro-rata vesting of the stock units over the service period will result. There are special vesting provisions for the stock units related to a change in control.

The following table shows a summary of the performance stock units as of June 30, 2023:

Performance Period	*Minimum Shares*	*Target Shares*	*Maximum Shares*
Market Condition Units			
2021 – 2023	66,968	115,036	163,104
2022 – 2024	17,788	117,937	218,086
2023 – 2025	0	78,411	156,822
Performance Condition Units			
2023 – 2025	0	188,238	376,476

The following table shows a summary of the status and activity of non-vested stock units:

	Restricted Stock Units	*Performance Stock Units*	*Total Stock Units*	*Weighted Average Grant Date Fair Value per Unit*
Non-vested at December 31, 2022	524,612	237,032	761,644	$ 32.40
Granted	232,494	267,073	499,567	$ 30.75
Credited from dividends	3,469	1,594	5,063	$ 26.89
Vested	(216,257)	0	(216,257)	$ 26.30
Forfeited	(13,609)	(6,077)	(19,686)	$ 32.50
Non-vested at June 30, 2023	530,709	499,622	1,030,331	$ 32.85

Stock Options

Stock options to executive officers vest and become exercisable in four equal annual installments. The stock options have a term of ten years. In the event of termination of employment, other than retirement, death or disability, any non-vested options are forfeited. In the event of termination of employment due to retirement, death or disability, pro-rata vesting of the options over the service period will result. There are special vesting provisions for the stock options related to a change in control.

Compensation expense for non-vested stock options is recorded over the vesting period based on the fair value at the date of grant. No stock options have been issued in 2023. We calculated the fair value of stock options on the date of grant using the Black-Scholes-Merton model and the assumptions listed below:

	January 2022 Grant	*January 2021 Grant*	*March 2020 Grant*
Grant date price per share of stock option award	$ 32.19	$ 29.84	$ 19.63
Expected dividend yield per share	0.00%	0.00%	0.00%
Expected life in years	6.76	6.64	6.40
Expected volatility	54.50%	54.80%	42.85%
Risk-free interest rate	1.52%	0.59%	0.87%
Grant date fair value per share of option awards	$ 17.58	$ 15.79	$ 8.42

Prior to February 2022, we had not declared a dividend since 2014. The dividend yield is based on the Company's current and prospective dividend rate which calculates a continuous dividend yield based upon the market price of the underlying common stock. The expected life in years is based on historical exercise data of options previously granted by us. Expected volatility is based on the historical volatility of our common stock and the risk-free interest rate is based on U.S. Treasury bill rates for the expected life of the option.

The following table shows a summary of the status and activity of stock options:

	Options	*Weighted Average Exercise Price per Option*	*Weighted Average Remaining Contractual Term (in years)*	*Aggregate Intrinsic Value (in millions)*
Outstanding at December 31, 2022	1,122,136	$ 27.05		
Exercised	(63,974)	$ 18.76		
Expired	(50,031)	$ 42.16		
Outstanding at June 30, 2023	1,008,131	$ 26.83	4.55	$ 9.0
Exercisable at June 30, 2023	846,655	$ 26.56	3.94	$ 8.1

Stock Compensation Expense

The following table presents total stock-based compensation expense recognized under our LTIP and employee stock purchase plan:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
(Dollars in millions)				
Stock-based compensation expense recognized:				
Selling, general and administrative expenses	$ 3.8	$ 3.2	$ 7.8	$ 6.7
Less related income tax benefit	1.1	1.1	2.2	2.3
Decrease in net income attributable to Koppers	$ 2.7	$ 2.1	$ 5.6	$ 4.4
Intrinsic value of exercised stock options	$ 0.2	$ 0.0	$ 0.9	$ 0.0
Cash received from the exercise of stock options	$ 0.3	$ 0.0	$ 1.2	$ 0.0

As of June 30, 2023, total future compensation expense related to non-vested stock-based compensation arrangements is expected to total $25.4 million and the weighted-average period over which this expense is expected to be recognized is approximately 25 months.

7. Segment Information

We have three reportable segments: Railroad and Utility Products and Services ("RUPS"), Performance Chemicals (“PC”) and Carbon Materials and Chemicals ("CMC"). Our reportable segments contain multiple aggregated business units since management believes the long-term financial performance of these business units is affected by similar economic conditions. The reportable segments are each managed separately because they manufacture and distribute distinct products with different production processes.

Our RUPS segment sells treated and untreated wood products, manufactured products and services primarily to the railroad and public utility markets. Railroad products and services include procuring and treating items such as crossties, switch ties and various types of lumber used for railroad bridges and crossings and the manufacture of rail joint bars. Utility products include transmission and distribution poles and pilings. The segment also operates a railroad services business that conducts engineering, design, repair and inspection services for railroad bridges, a business related to the recovery of used crossties and utility poles and a business related to the inspection of utility poles.

Our PC segment develops, manufactures, and markets wood preservation chemicals and wood treatment technologies and services a diverse range of end-markets including infrastructure, residential and commercial construction, and agriculture.

Our CMC segment is primarily a manufacturer of creosote, carbon pitch, naphthalene, phthalic anhydride and carbon black feedstock. Creosote is used in the treatment of wood and carbon black feedstock is used in the production of carbon black. Carbon pitch is a critical raw material used in the production of aluminum and for the production of steel in electric arc furnaces. Naphthalene is used for the production of phthalic anhydride and as a surfactant in the production of concrete. Phthalic anhydride is used in the production of plasticizers, polyester resins and alkyd paints.

Our primary measure of segment profitability is adjusted earnings before interest, income taxes, depreciation, amortization and certain non-cash and/or non-recurring items that do not contribute directly to management’s evaluation of our operating results (as defined by us, “adjusted EBITDA"). These items include impairment, restructuring and plant closure costs, mark-to-market commodity hedging, gain or loss on sale of assets and LIFO inventory effects. This presentation is consistent with how our chief operating decision maker evaluates the results of operations and makes strategic decisions about the business. In addition, adjusted EBITDA is the primary measure used to determine the level of achievement of management’s short-term incentive goals and related payout, as well as one of the measures used to determine performance and related payouts for certain performance share units granted to management. For these reasons, we believe that adjusted EBITDA represents the most relevant measure of segment profit and loss.

Adjusted EBITDA is reconciled to net income on a consolidated basis, the most directly comparable financial measure determined and reported in accordance with U.S. GAAP. The accounting policies of the reportable segments are the same as those described in the summary of significant accounting policies. Intersegment transactions are eliminated in consolidation.

Contract Balances

The timing of revenue recognition results in both billed accounts receivable and unbilled receivables, both classified as accounts receivable, net of allowance within the condensed consolidated balance sheet. Contract assets of $6.8 million and $8.3 million are recorded within accounts receivable, net of allowance within the condensed consolidated balance sheet as of June 30, 2023 and December 31, 2022, respectively.

The following table sets forth certain sales and operating data, net of all intersegment transactions, for our segments:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
(Dollars in millions)				
Revenues from external customers:				
Railroad and Utility Products and Services	$ 234.4	$ 204.2	$ 447.5	$ 387.6
Performance Chemicals	180.9	149.6	327.8	286.0
Carbon Materials and Chemicals	161.9	148.7	315.3	288.2
Total	$ 577.2	$ 502.5	$ 1,090.6	$ 961.8
Intersegment revenues:				
Performance Chemicals	$ 7.2	$ 5.9	$ 12.8	$ 9.9
Carbon Materials and Chemicals	23.2	18.9	42.2	37.5
Total	$ 30.4	$ 24.8	$ 55.0	$ 47.4
Depreciation and amortization expense:				
Railroad and Utility Products and Services	$ 5.8	$ 5.5	$ 11.7	$ 10.9
Performance Chemicals	3.5	3.8	7.0	7.7
Carbon Materials and Chemicals	5.1	4.1	9.7	9.0
Total	$ 14.4	$ 13.4	$ 28.4	$ 27.6
Adjusted EBITDA:				
Railroad and Utility Products and Services	$ 22.3	$ 13.2	$ 38.1	$ 24.8
Performance Chemicals	32.3	20.4	58.6	41.2
Carbon Materials and Chemicals	15.7	21.0	35.1	41.2
Items excluded from the determination of segment profit:				
Impairment, restructuring and plant closure (costs) benefits	0.0	0.2	(0.1)	0.0
Gain on sale of assets	0.0	0.0	1.8	2.5
LIFO expense[(1)]	(0.2)	(5.1)	(0.4)	(6.8)
Mark-to-market commodity hedging losses	(1.1)	(6.8)	0.0	(7.1)
Interest expense	(20.3)	(11.1)	(34.3)	(20.8)
Depreciation and amortization	(14.4)	(13.4)	(28.4)	(27.6)
Income tax provision	(9.9)	(6.8)	(19.8)	(16.5)
Discontinued operations	0.0	0.0	0.0	(0.5)
Net income	$ 24.4	$ 11.6	$ 50.6	$ 30.4

(1) *The LIFO expense adjustment removes the entire impact of LIFO and effectively reflects the results as if we were on a FIFO inventory basis.*

The following table sets forth revenues for significant product lines, net of all intersegment transactions, for our segments:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
(Dollars in millions)				
Railroad and Utility Products and Services:				
Railroad treated products	$ 138.5	$ 122.3	$ 266.0	$ 227.6
Utility poles	71.2	59.5	134.5	115.7
Railroad infrastructure services	8.6	9.7	18.1	19.0
Rail joints	6.9	7.0	13.2	13.8
Other products	9.2	5.7	15.7	11.5
Total	234.4	204.2	447.5	387.6
Performance Chemicals:				
Wood preservative products	166.6	141.7	303.6	270.8
Other products	14.3	7.9	24.2	15.2
Total	180.9	149.6	327.8	286.0
Carbon Materials and Chemicals:				
Pitch and related products	104.0	82.5	204.7	160.3
Phthalic anhydride and other chemicals	21.7	28.2	40.7	53.5
Carbon black feedstock and distillates	20.8	20.7	38.5	39.7
Naphthalene	6.7	8.4	15.3	16.9
Other products	8.7	8.9	16.1	17.8
Total	161.9	148.7	315.3	288.2
Total	$ 577.2	$ 502.5	$ 1,090.6	$ 961.8

The following table sets forth assets and goodwill allocated to each of our segments:

(Dollars in millions)		June 30, 2023		December 31, 2022
Segment assets:				
Railroad and Utility Products and Services	$	719.7	$	660.8
Performance Chemicals		532.5		516.9
Carbon Materials and Chemicals		533.4		500.5
All other		30.1		33.2
Total	$	1,815.7	$	1,711.4
Goodwill:				
Railroad and Utility Products and Services	$	120.5	$	120.6
Performance Chemicals		173.3		173.4
Total	$	293.8	$	294.0

8. Income Taxes

Effective Tax Rate

The income tax provision for interim periods is comprised of an estimated annual effective income tax rate applied to current year ordinary income and tax associated with discrete items. These discrete items generally relate to excess stock compensation deductions, changes in tax laws, adjustments to unrecognized tax benefits and changes of estimated tax liability to the actual liability determined upon filing income tax returns. To determine the annual effective tax rate, management is required to make estimates of annual pretax income in each domestic and foreign jurisdiction in which we conduct business. Entities that have historical pre-tax losses and current year estimated pre-tax losses that are not projected to generate a future benefit are excluded from the estimated annual effective income tax rate.

The estimated annual effective income tax rate differs from the U.S. federal statutory tax rate due to:

	June 30, 2023	June 30, 2022
Federal income tax rate	21.0 %	21.0 %
Foreign earnings taxed at different rates	4.2	6.4
Nondeductible expenses	1.3	1.5
State income taxes, net of federal tax benefit	1.4	0.6
GILTI inclusion, net of foreign tax credits	0.1	(0.3)
Change in tax contingency reserves	0.1	0.1
Interest expense deduction limitation	0.0	5.0
Estimated annual effective income tax rate	28.1 %	34.3 %

Income taxes as a percentage of pretax income were 28.9 and 28.1 percent for the three and six months ended June 30, 2023, and 37.0 and 34.8 percent for the three and six months ended June 30, 2022, respectively. The effective income tax rates for the periods mentioned were slightly higher than their respective estimated annual effective income tax rates due to various discrete items, which were not material in the aggregate or individually.

During the year, management regularly updates estimates of pre-tax income and income tax expense based on changes in pre-tax income projections by taxable jurisdiction, repatriation of foreign earnings, unrecognized tax benefits and other tax matters. To the extent that actual results vary from these estimates, the actual annual effective income tax rate at the end of the year could be materially different from the estimated annual effective income tax rate for the six months ended June 30, 2023.

Unrecognized Tax Benefits

We file income tax returns in the U.S. federal jurisdiction, individual U.S. state jurisdictions and non-U.S. jurisdictions. With few exceptions, we are no longer subject to U.S. federal, U.S. state, or non-U.S. income tax examinations by tax authorities for years prior to 2017.

Unrecognized tax benefits totaled $1.5 million and $1.4 million as of June 30, 2023 and December 31, 2022, respectively. The total amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate, was approximately $1.5 million and $1.4 million as of June 30, 2023 and December 31, 2022, respectively.

We recognize interest expense and any related penalties from unrecognized tax benefits in income tax expense. For the six months ended June 30, 2023 we recognized $0.1 million in interest and penalties. For the year ended December 31, 2022, we recognized income of $0.1 million in interest and penalties.

We do not anticipate material changes to the amount of unrecognized tax benefits within the next twelve months.

9. Inventories, net

The following table presents net inventories:

(Dollars in millions)		*June 30, 2023*		*December 31, 2022*
Raw materials	$	341.4	$	318.5
Work in process		10.1		10.2
Finished goods		125.5		130.4
	$	477.0	$	459.1
Less revaluation to LIFO		103.9		103.4
Net	$	373.1	$	355.7

10. Property, Plant and Equipment

The following table presents property, plant and equipment:

(Dollars in millions)		*June 30, 2023*		*December 31, 2022*
Land	$	18.2	$	15.0
Buildings		80.0		80.3
Machinery and equipment		954.5		924.1
	$	1,052.7	$	1,019.4
Less accumulated depreciation		457.8		462.1
Net	$	594.9	$	557.3

11. Pensions and Post-Retirement Benefit Plans

We maintain a number of defined benefit and defined contribution plans to provide retirement benefits for employees in the United States, as well as employees outside the United States. These plans are maintained and contributions are made in accordance with the Employee Retirement Income Security Act of 1974 (“ERISA”) or local law, as applicable. The defined benefit pension plans generally provide benefits based upon years of service and compensation. Pension plans are funded except for three domestic non-qualified defined benefit pension plans for certain key executives.

In the United States, all qualified and two of the non-qualified defined benefit pension plans for salaried and hourly employees have been closed to new participants and have been frozen. Accordingly, these pension plans no longer accrue additional years of service or recognize future increases in compensation for benefit purposes.

In connection with our defined benefit pension plan in the United Kingdom, in 2021, we entered into a buy-in bulk annuity insurance policy in exchange for a premium payment of $67.8 million, which is subject to adjustment as a result of subsequent data cleansing activities. Under the terms of this buy-in insurance policy, the insurer is liable to pay the benefits of the plan, but the plan still retains full legal responsibility to pay the benefits to members using the insurance payments. The buy-in policy will be treated as a plan asset going forward until such time as the buy-in policy is converted to a buy-out policy, which is when individual insurance policies will be assigned to each member of the plan and the plan will no longer have legal responsibility to pay the benefits to the members. The data cleansing effort was substantially completed in late 2022 and by late 2023, the pension obligation is expected to be irrevocably settled. Upon that event, we will recognize a pre-tax pension settlement loss of approximately $20 million.

The defined contribution plans generally provide retirement assets to employee participants based upon employer and employee contributions to the participant’s individual investment account. We also provide retiree medical insurance coverage to certain U.S. employees and a life insurance benefit to most U.S. employees. For salaried employees, the retiree medical and retiree life insurance plans have been closed to new participants.

The following table provides the components of net periodic benefit cost for the pension plans:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
(Dollars in millions)				
Service cost	$ 0.4	$ 0.3	$ 0.8	$ 0.6
Interest cost	2.0	1.5	4.1	2.9
Expected return on plan assets	(1.8)	(1.9)	(3.5)	(3.9)
Amortization of net loss	0.6	0.4	1.1	0.9
Net periodic benefit cost	$ 1.2	$ 0.3	$ 2.5	$ 0.5
Defined contribution plan expense	$ 2.4	$ 2.3	$ 4.9	$ 4.8

12. Debt

The following table summarizes debt:

	Weighted Average Interest Rate	Maturity	June 30, 2023	December 31, 2022
(Dollars in millions)				
Credit Facility	7.36%	2027	$ 528.4	$ 325.3
Term Loan B	8.56%	2030	387.3	0.0
Senior Notes due 2025	-	-	0.0	500.0
Debt			$ 915.7	$ 825.3
Less short-term debt and current maturities of long-term debt			4.0	0.0
Less unamortized debt issuance costs			9.5	7.6
Long-term debt			$ 902.2	$ 817.7

Credit Facility

We have an $800.0 million revolving credit agreement (the “Credit Facility”) with a consortium of banks. The Credit Facility also provides for a $50.0 million swingline facility and provides for the ability to incur one or more uncommitted incremental revolving or term loan facilities in an aggregate amount of at least $730.0 million, subject to applicable financial covenants. The interest rate on the Credit Facility is variable and may be based on the Secured Overnight Financing Rate (“SOFR”), which is the applicable benchmark for current borrowings, or an alternative benchmark depending on the borrowing type.

Borrowings under the Credit Facility are secured by a first priority lien on substantially all of the assets (excluding real property and other customary assets) of Koppers Inc., Koppers Holdings Inc. and their material domestic subsidiaries. The Credit Facility contains certain covenants that limit Koppers Inc. and its restricted subsidiaries, including, without limitation, limitations on additional indebtedness, liens, dividends, investments, acquisitions, subsidiary and certain other distributions, asset sales, transactions with affiliates and modifications to material documents, including organizational documents. In addition, such covenants give rise to events of default upon the failure by Koppers Inc. and its restricted subsidiaries to meet certain financial ratios.

As of June 30, 2023, we had approximately $301 million of unused revolving credit availability after restrictions from certain letter of credit commitments and other covenants. As of June 30, 2023, $7.8 million of commitments were utilized by outstanding letters of credit.

Term Loan B

On April 10, 2023, we entered into Amendment No. 1 to the Credit Facility ("Amendment No. 1") which added a new class of senior secured term loans under the Credit Facility in an aggregate principal amount of $400.0 million (the "Term Loan B"), among other modifications. The Term Loan B was issued at 97 percent of face value, resulting in $388.0 million of net proceeds, before debt financing costs. The interest rate on the Term Loan B is variable and is based on, at our option, adjusted Term SOFR Rate or adjusted Daily Simple SOFR, in each case plus 4.00 percent with a floor of 0.50 percent. The principal balance of the Term Loan B will be repayable in quarterly installments of $1.0 million each quarter beginning with the third quarter of 2023, with the balance due at maturity on April 10, 2030.

During the six months ended June 30, 2023, we entered into interest rate swap agreements with an aggregate notional value of $150.0 million related to the Term Loan B. The interest rate swaps effectively convert the variable rate to a weighted average fixed rate of 7.45 percent for that portion of the loan. All swap agreements expire in April 2027.

Senior Notes due 2025

Koppers Inc.'s $500 million Senior Notes due 2025 (the "2025 Notes") were unsecured senior obligations of Koppers Inc. and were guaranteed by Koppers Holdings Inc. and certain of Koppers Inc.'s domestic subsidiaries.

On April 11, 2023, we used the proceeds from the Term Loan B, cash on hand and available borrowing capacity under our existing Credit Facility to redeem all of the outstanding 2025 Notes at face value and to pay any fees and expenses incurred in connection with the issuance of the Term Loan B and the redemption of the 2025 Notes.

Subsequent Events

During the third quarter of 2023, we entered into an additional interest rate swap with an aggregate notional value of $100.0 million related to the Term Loan B. As of July 31, 2023, the interest rate swaps collectively convert the variable rate to a weighted average fixed rate of 7.73 percent for the notional value of $250.0 million. All swap agreements expire in April 2027.

13. Asset Retirement Obligations

We recognize asset retirement obligations for the removal and disposal of residues; dismantling of certain tanks required by governmental authorities; cleaning and dismantling costs for owned railcars; cleaning costs for leased railcars and barges; and site demolition, when required by governmental authorities or by contract. The following table reflects changes in the carrying values of asset retirement obligations:

	June 30, 2023	December 31, 2022
(Dollars in millions)		
Balance at beginning of year	$ 15.5	$ 13.2
Accretion expense	0.5	1.1
Revision in estimated cash flows	(0.5)	2.2
Cash expenditures	(0.2)	(1.0)
Balance at end of year	$ 15.3	$ 15.5

14. Leases

We recognize lease obligations and associated right-of-use assets for existing non-cancelable leases. We have non-cancelable operating leases primarily associated with railcars, office and manufacturing facilities, storage tanks, ships, production equipment and vehicles. Many of our leases include both lease (e.g., fixed rent) and non-lease components (e.g., maintenance and services). For certain asset classes such as railcars, storage tanks and ships, we have separated the lease and non-lease components based on the estimated stand-alone price for each component. For the remaining asset classes, we have elected to account for these components as a single lease component. In addition, we exclude leases expiring within twelve months from balance sheet recognition.

Many of our leases include one or more options to renew. We evaluate renewal options at the lease commencement date and regularly thereafter to determine if we are reasonably certain to exercise the option, in which case we include the renewal period in our lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on information available to determine the present value of the lease payments.

Lease expense for operating leases is recognized on a straight-line basis over the lease term. Variable lease expense is recognized in the period in which the obligation for those payments is incurred.

The following table presents operating and variable lease costs:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
(Dollars in millions)				
Operating lease costs	$ 7.1	$ 7.2	$ 13.8	$ 14.7
Variable lease costs	1.2	0.6	2.1	1.4

The following table presents information about the amount and timing of cash flows arising from our operating leases as of June 30, 2023:

(Dollars in millions)		
2023	$	14.0
2024		24.2
2025		18.6
2026		13.5
2027		10.9
Thereafter		20.1
Total lease payments	$	101.3
Less: Interest		(17.1)
Present value of lease liabilities	$	84.2

Supplemental condensed consolidated balance sheet information related to leases is as follows:

(Dollars in millions)		*June 30, 2023*		*December 31, 2022*
Operating leases:				
Operating lease right-of-use assets	$	84.1	$	86.3
Current operating lease liabilities	$	21.7	$	20.5
Operating lease liabilities		62.5		66.3
Total operating lease liabilities	$	84.2	$	86.8
Weighted average remaining lease term, in years		5.2		5.6
Weighted average discount rate		6.7%		7.2%

15. Derivative Financial Instruments

We utilize derivative instruments to manage exposures to risks that have been identified, measured and are capable of being mitigated. The primary risks that we manage by using derivative instruments are commodity price risk associated with copper, foreign currency exchange risk associated with a number of currencies, principally the U.S. dollar and Australian dollar, and interest rate risk associated with variable rate borrowings.

Swap contracts on copper are used to manage the price risk associated with forecasted purchases of materials used in our manufacturing processes. Generally, we will not hedge cash flow exposures for durations longer than 36 months and we have hedged certain volumes of copper through the end of 2024.

We enter into foreign currency forward contracts to manage foreign currency risk associated with our receivable and payable balances in addition to foreign-denominated sales. We also enter into interest rate swaps to effectively convert portions of our variable interest debt into fixed rate debt. Our objective in using interest rate swaps is to add stability to interest expense and to manage our exposure to interest rate movements. Generally, we enter into master netting arrangements with the counterparties and offset net derivative positions with the same counterparties. Currently, our agreements do not require cash collateral.

The Company recognizes all derivative instruments as either assets or liabilities at fair value on the balance sheet. The derivative instruments are classified as current or noncurrent based upon the expected timing of cash flows and are subject to offset under our master netting arrangements. A derivative instrument's fair value is determined using significant other observable inputs, a Level 2 fair value measurement. We designate certain of our commodity swaps as cash flow hedges of forecasted purchases of commodities. We also designate our interest rate swaps as cash flow hedges on interest payments.

For derivative instruments that are designated and qualify as cash flow hedges, the effective portion of the gain or loss on the derivative is reported as a component of other comprehensive income and is reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative instruments representing hedge ineffectiveness are recognized in current earnings.

For those commodity swaps where hedge accounting is not elected, the fair value of the commodity swap is recognized as an asset or liability on the condensed consolidated balance sheet and the related gain or loss on the derivative is reported in current earnings. These amounts are classified in cost of sales in the condensed consolidated statement of operations. The fair value associated with forward contracts related to foreign currency that are not designated as hedges are immediately charged to earnings. These amounts are classified in cost of sales in the condensed consolidated statement of operations and comprehensive income (loss).

See Note 4 – “Comprehensive Income (Loss) and Equity”, for amounts recorded in other comprehensive income (loss) and for amounts reclassified from accumulated other comprehensive income (loss) into net income.

As of June 30, 2023 and December 31, 2022, we had outstanding copper swap contracts of the following amounts:

	Units Outstanding (in Pounds)		*Net Fair Value - Asset (Liability)*	
	June 30, 2023	*December 31, 2022*	*June 30, 2023*	*December 31, 2022*
(Amounts in millions)				
Cash flow hedges	28.7	21.3	$ (0.3)	$ 2.5
Contracts where hedge accounting was not elected	8.0	6.0	0.6	0.6
Total	36.7	27.3	$ 0.3	$ 3.1

The unrealized loss from contracts where hedge accounting was not elected is as follows:

	Three Months Ended June 30,		*Six Months Ended June 30,*	
	2023	*2022*	*2023*	*2022*
(Dollars in millions)				
Loss from contracts where hedge accounting was not elected	$ (1.1)	$ (6.8)	$ 0.0	$ (7.1)

The net currency units outstanding for contracts were:

	June 30, 2023	*December 31, 2022*
(In millions)		
Australian Dollars	AUD 3.0	AUD 3.0
United States Dollars	USD 12.1	USD 9.3

See Note 12 – "Debt" for discussion of the interest rate swap agreements, which effectively convert the variable rate to a fixed rate for portions of the Term Loan B. The interest rate swaps have been designated as cash flow hedges and involve the receipt of variable amounts from a counterparty in exchange for us making fixed rate payments over the life of the agreements without exchange of the underlying notional amount.

The fair value of the outstanding derivative contracts recorded in the balance sheet are as follows:

				June 30, 2023
	Copper Swap Contracts	*Foreign Currency Forward Contracts*	*Interest Rate Swap Contracts*	*Total*
(Dollars in millions)				
Derivative contracts	$ 0.9	$ 0.0	$ 2.8	$ 3.7
Other assets	0.3	0.0	1.2	1.5
Accrued liabilities	(0.5)	(0.2)	0.0	(0.7)
Other long-term liabilities	(0.4)	0.0	0.0	(0.4)
Net asset (liability) on balance sheet	$ 0.3	$ (0.2)	$ 4.0	$ 4.1
Accumulated other comprehensive (loss) gain, net of tax	$ (0.2)	$ 0.0	$ 3.0	$ 2.8

				December 31, 2022
	Copper Swap Contracts	*Foreign Currency Forward Contracts*	*Interest Rate Swap Contracts*	*Total*
(Dollars in millions)				
Derivative contracts	$ 2.9	$ 0.1	$ 0.0	$ 3.0
Other assets	0.5	0.0	0.0	0.5
Accrued liabilities	(0.3)	(0.1)	0.0	(0.4)
Net asset on balance sheet	$ 3.1	$ 0.0	$ 0.0	$ 3.1
Accumulated other comprehensive gain, net of tax	$ 1.8	$ 0.0	$ 0.0	$ 1.8

We estimate that unrealized gains, net of tax, for commodity price hedging and interest rate swaps of $2.1 million will be reclassified from other comprehensive income into earnings over the next twelve months.

16. Commitments and Contingent Liabilities

We are involved in litigation and various proceedings relating to environmental laws and regulations, product liability and other matters. Certain of these matters are discussed below. The ultimate resolution of these contingencies is subject to significant uncertainty and should we fail to prevail in any of these legal matters or should several of these legal matters be resolved against us in the same reporting period, these legal matters could, individually or in the aggregate, be material to the condensed consolidated financial statements.

Legal Proceedings

Coal Tar Pitch Cases. Koppers Inc. is one of several defendants in lawsuits filed in two states in which the plaintiffs claim they suffered a variety of illnesses (including cancer) as a result of exposure to coal tar pitch sold by the defendants. There were 51 plaintiffs in 27 cases pending as of June 30, 2023 and December 31, 2022. As of June 30, 2023, there were 26 cases pending in the Court of Common Pleas of Allegheny County, Pennsylvania, and one case pending in the Circuit Court of Knox County, Tennessee.

The plaintiffs in all 27 pending cases seek to recover compensatory damages. Plaintiffs in 24 of those cases also seek to recover punitive damages. The plaintiffs in the 26 cases filed in Pennsylvania seek unspecified damages in excess of the court's minimum jurisdictional limit. The plaintiff in the Tennessee state court case seeks damages of $15.0 million. The other defendants in these lawsuits vary from case to case and include companies such as Beazer East, Inc. ("Beazer East"), Honeywell International Inc., Graftech International Holdings, UCAR Carbon Company, Inc., and SGL Carbon Corporation. Discovery is proceeding in these cases. No trial dates have been set in any of these cases.

We have not provided a reserve for the coal tar pitch lawsuits because, at this time, we cannot reasonably determine the probability of a loss, and the amount of loss, if any, cannot be reasonably estimated. The timing of resolution of these cases cannot be reasonably determined. Although Koppers Inc. is vigorously defending these cases, an unfavorable resolution of these matters may have a material adverse effect on our business, financial condition, cash flows and results of operations.

Environmental and Other Litigation Matters

We are subject to federal, state, local and foreign laws and regulations and potential liabilities relating to the protection of the environment and human health and safety including, among other things, the cleanup of contaminated sites, the treatment, storage and disposal of wastes, the discharge of effluent into waterways, the emission of substances into the air and various health and safety matters. We expect to incur substantial costs for ongoing compliance with such laws and regulations. We may also face governmental or third-party claims, or otherwise incur costs, relating to cleanup of, or for injuries resulting from, contamination at sites associated with past and present operations. We accrue for environmental liabilities when a determination can be made that a liability is probable and reasonably estimable.

Environmental and Other Liabilities Retained or Assumed by Others. We have agreements with former owners of certain of our operating locations under which the former owners retained, assumed and/or agreed to indemnify us against certain environmental and other liabilities. The most significant of these agreements was entered into at Koppers Inc.'s formation on December 29, 1988 (the "Acquisition"). Under the related asset purchase agreement between Koppers Inc. and Beazer East, subject to certain limitations, Beazer East retained the responsibility for and agreed to indemnify Koppers Inc. against certain liabilities, damages, losses and costs, including, with certain limited exceptions, liabilities under and costs to comply with environmental laws to the extent attributable to acts or omissions occurring prior to the Acquisition and liabilities related to products sold by Beazer East prior to the Acquisition (the "Indemnity"). Beazer Limited, the parent company of Beazer East, unconditionally guaranteed Beazer East's performance of the Indemnity pursuant to a guarantee.

The Indemnity provides different mechanisms, subject to certain limitations, by which Beazer East is obligated to indemnify Koppers Inc. with regard to certain environmental, product and other liabilities and imposes certain conditions on Koppers Inc. before receiving such indemnification, including, in some cases, certain limitations regarding the time period as to which claims for indemnification can be brought. In July 2004, Koppers Inc. and Beazer East agreed to amend the environmental indemnification provisions of the December 29, 1988 asset purchase agreement to extend the indemnification period for pre-closing environmental liabilities, subject to the following paragraph, and agreed to share toxic tort litigation defense arising from any sites acquired from Beazer East.

Qualified expenditures under the Indemnity are not subject to a monetary limit. Qualified expenditures under the Indemnity include (i) environmental cleanup liabilities required by third parties, such as investigation, remediation and closure costs, relating to pre-December 29, 1988 (“Pre-Closing”) acts or omissions of Beazer East or its predecessors; (ii) environmental claims by third parties for personal injuries, property damages and natural resources damages relating to Pre-Closing acts or omissions of Beazer East or its predecessors; (iii) punitive damages for the acts or omissions of Beazer East and its predecessors without regard to the date of the alleged conduct and (iv) product liability claims for products sold by Beazer East or its predecessors without regard to the date of the alleged conduct. The indemnification period ended July 14, 2019 (the “Claim Deadline”) and Beazer East may now tender certain third-party claims described in sections (i) and (ii) above to Koppers Inc. However, to the extent the third-party claims described in sections (i) and (ii) above were tendered to Beazer East by the Claim Deadline, Beazer East will continue to be required to pay the costs arising from such claims under the Indemnity. Furthermore, the Claim Deadline did not change the provisions of the Indemnity with respect to indemnification for non-environmental claims, such as product liability claims, which claims may continue to be tendered by Koppers Inc. to Beazer East.

The Indemnity provides for the resolution of issues between Koppers Inc. and Beazer East by an arbitrator on an expedited basis upon the request of either party. The arbitrator could be asked, among other things, to make a determination regarding the allocation of environmental responsibilities between Koppers Inc. and Beazer East. Arbitration decisions under the Indemnity are final and binding on the parties.

Contamination has been identified at most manufacturing and other sites of our subsidiaries. One site currently owned and operated by Koppers Inc. in the United States is listed on the National Priorities List promulgated under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (“CERCLA”). Currently, at the properties acquired from Beazer East (which includes the National Priorities List site and all but one of the sites permitted under the Resource Conservation and Recovery Act (“RCRA”)), a significant portion of all investigative, cleanup and closure activities are being conducted and paid for by Beazer East pursuant to the terms of the Indemnity. In addition, other of Koppers Inc.’s sites are or have been operated under RCRA and various other environmental permits, and remedial and closure activities are being conducted at some of these sites.

To date, the parties that retained, assumed and/or agreed to indemnify us against the liabilities referred to above, including Beazer East, have performed their obligations in all material respects. Periodically, issues have arisen between Koppers Inc. and Beazer East and/or other indemnitors that have been resolved without arbitration. Koppers Inc. and Beazer East engage in discussions from time to time that involve, among other things, the allocation of environmental costs related to certain operating and closed facilities.

If for any reason (including disputed coverage or financial incapability) one or more of such parties fail to perform their obligations and we are held liable for or otherwise required to pay all or part of such liabilities without reimbursement, the imposition of such liabilities on us could have a material adverse effect on our business, financial condition, cash flows and results of operations. Furthermore, we could be required to record a contingent liability on our balance sheet with respect to such matters, which could result in a negative impact to our business, financial condition, cash flows and results of operations.

Domestic Environmental Matters. Koppers Inc. has been named as one of the potentially responsible parties (“PRPs”) at the Portland Harbor CERCLA site located on the Willamette River in Oregon. Koppers Inc. operated a coal tar pitch terminal near the site. Koppers Inc. has responded to an EPA information request and has executed a PRP agreement which outlines a private process to develop an allocation of past and future costs among more than 80 parties to the site. Koppers Inc. believes it is a *de minimis* contributor at the site.

The EPA issued its Record of Decision (“ROD”) in January 2017 for the Portland Harbor CERCLA site. The selected remedy includes a combination of sediment removal, capping, enhanced and monitored natural recovery and riverbank improvements. The ROD does not determine who is responsible for remediation costs. At that time, the net present value and undiscounted costs of the selected remedy as estimated in the ROD were approximately $1.1 billion and $1.7 billion, respectively. These costs are likely to increase given recent submissions to EPA regarding remedy design and because the remedy will not be implemented for several years. Responsibility for implementing and funding that work is yet to be determined. The funding of that work amongst the PRPs is the subject of a separate private allocation process which is ongoing.

Additionally, Koppers Inc. is involved in two separate matters involving natural resource damages at the Portland Harbor site. One matter involves claims by the trustees to recover damages based upon an assessment of damages to natural resources caused by the releases of hazardous substances to the Willamette River. The assessment serves as the foundation to estimate liabilities for settlements of natural resource damages claims or litigation to recover from those who do not settle with the trustee groups. Koppers Inc. has been engaged in a process to resolve its natural resource damage liabilities for the assessment area. A second matter involves a lawsuit filed in January 2017 by the Yakama Nation in Oregon federal court. Yakama Nation seeks recovery for response costs and the costs of assessing injury to natural resources in waterways beyond the current assessment area. Following the most recent court rulings, the Yakama Nation case has been stayed pending completion of the private allocation process for the Portland Harbor CERCLA site.

In September 2009, Koppers Inc. received a general notice letter stating that it may be a PRP at the Newark Bay CERCLA site. In January 2010, Koppers Inc. submitted a response to the general notice letter asserting that Koppers Inc. is a *de minimis* party at this site.

We have accrued the estimated costs of participating in the PRP group at the Portland Harbor and Newark Bay CERCLA sites and estimated *de minimis* contributor settlement amounts at the sites totaling $4.0 million as of June 30, 2023. The actual cost could be materially higher as there has not been a determination of how those costs will be allocated among the PRPs at the sites. Accordingly, an unfavorable resolution of these matters may have a material adverse effect on our business, financial condition, cash flows and results of operations.

There are two plant sites related to the Performance Chemicals business and one plant site related to the Utility and Industrial Products business in the United States where we have recorded environmental remediation liabilities for soil and groundwater contamination which occurred prior to our acquisition of the businesses. As of June 30, 2023, our estimated environmental remediation liability for these acquired sites totals $3.9 million.

Foreign Environmental Matters. There is one plant site related to the Performance Chemicals business located in Australia where we have recorded an environmental remediation liability for soil and groundwater contamination which occurred prior to the acquisition of the business. As of June 30, 2023, our estimated environmental remediation liability for the acquired site totals $1.2 million.

Environmental Reserves Rollforward. The following table reflects changes in the accrual for environmental remediation. As of June 30, 2023 and December 31, 2022, $2.5 million is classified as current liabilities.

	Period ended	
	June 30, 2023	*December 31, 2022*
(Dollars in millions)		
Balance at beginning of period	$ 10.9	$ 10.7
Expense	0.1	1.6
Cash expenditures	(0.2)	(1.1)
Currency translation	(0.1)	(0.3)
Balance at end of period	$ 10.7	$ 10.9

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This report and any documents incorporated herein by reference contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 and may include, but are not limited to, statements about sales levels, acquisitions, restructuring, declines in the value of Koppers assets and the effect of any related impairment charges, profitability and anticipated expenses and cash outflows. All forward-looking statements involve risks and uncertainties. All statements contained herein that are not clearly historical in nature are forward-looking, and words such as "believe," "anticipate," "expect," "estimate," "may," "will," "should," "continue," "plans," "potential," "intends," "likely," or other similar words or phrases are generally intended to identify forward-looking statements. Any forward-looking statement contained herein, in press releases, written statements or documents filed with the Securities and Exchange Commission, or in Koppers communications and discussions with investors and analysts in the normal course of business through meetings, phone calls and conference calls, regarding future dividends, expectations with respect to sales, earnings, cash flows, operating efficiencies, restructurings, product introduction or expansion, the benefits of acquisitions and divestitures, or other matters as well as financings and debt reduction, are subject to known and unknown risks, uncertainties and contingencies. Many of these risks, uncertainties and contingencies are beyond our control, and may cause actual results, performance or achievements to differ materially from anticipated results, performance or achievements. Factors that might affect such forward-looking statements, include, among other things, the impact of changes in commodity prices, such as oil and copper, on product margins; general economic and business conditions; inflation; disruption in the U.S. and global financial markets; potential difficulties in protecting our intellectual property; the ratings on our debt and our ability to repay or refinance our outstanding indebtedness as it matures; our ability to operate within the limits of our debt covenants; potential impairment of our goodwill and/or long-lived assets; demand for Koppers goods and services; competitive conditions; interest rate and foreign currency rate fluctuations; availability and costs of key raw materials, such as coal tar, and unfavorable resolution of claims against us, as well as those discussed more fully elsewhere in this report and in documents filed with the Securities and Exchange Commission by Koppers, particularly our latest annual report on Form 10-K and subsequent filings. We caution you that the foregoing list of important factors may not contain all of the material factors that are important to you. In addition, in light of these risks and uncertainties, the matters referred to in the forward-looking statements contained in this report and the documents incorporated by reference herein may not in fact occur. Any forward-looking statements in this report speak only as of the date of this report, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after that date or to reflect the occurrence of unanticipated events.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the unaudited financial statements and related notes included in Item 1 of this Part I as well as the audited consolidated financial statements and the related notes included in our Annual Report on Form 10-K for the year ended December 31, 2022.

Overview

We are a leading integrated global provider of treated wood products, wood preservation chemicals and carbon compounds. Our products and services are used in a variety of niche applications in a diverse range of end-markets, including the railroad, specialty chemical, utility, residential lumber, agriculture, aluminum, steel, rubber and construction industries. We serve our customers through a comprehensive global manufacturing and distribution network, with manufacturing capabilities in North America, South America, Australasia and Europe.

We operate three principal businesses: RUPS, PC and CMC. Through our RUPS business, we believe that we are the largest supplier of wood crossties to the Class I railroads in North America. Our other treated wood products include utility poles for the electric, telephone, and broadband utility industries in the United States and Australia and construction pilings in the U.S. We also provide rail joint bar products as well as various services to the railroad industry in North America.

Through our PC business, we believe that we are the global leader in developing, manufacturing and marketing wood preservation chemicals and wood treatment technologies for use in the pressure treating of lumber for residential, industrial and agricultural applications.

Our CMC business processes coal tar into a variety of products, including creosote, carbon pitch, carbon black feedstock, naphthalene and phthalic anhydride, which are intermediate materials necessary in the pressure treatment of wood, and the production of aluminum, steel, carbon black, high-strength concrete, plasticizers and specialty chemicals, respectively.

Non-GAAP Financial Measures

We utilize certain financial measures that are not in accordance with U.S. generally accepted accounting principles (U.S. GAAP) to analyze and manage the performance of our business. We believe that adjusted EBITDA provides information useful to investors in understanding the underlying operational performance of the company, our business and performance trends, and facilitates comparisons between periods. The exclusion of certain items permits evaluation and a comparison between periods of results for business operations, and it is on this basis that our management internally assesses our performance. In addition, our board of directors and executive management team use adjusted EBITDA as a performance measure under the company's annual incentive plans for certain performance share units granted to management.

Although we believe that these non-GAAP financial measures enhance investors' understanding of our business and performance, these non-GAAP financial measures should not be considered an alternative to GAAP financial measures and should be read in conjunction with the relevant GAAP financial measures. Other companies in a similar industry may define or calculate these measures differently than we do, limiting their usefulness as comparative measures. Because of these limitations, these non-GAAP financial measures should not be considered in isolation or as substitutes for performance measures calculated in accordance with GAAP.

Adjusted EBITDA is a non-GAAP financial measure defined as net income from continuing operations before interest, income taxes, depreciation, amortization and other adjustments. These other adjustments are items that we believe are not representative of underlying business performance. Adjusted items typically include certain expenses associated with impairment, restructuring and plant closure costs, significant gains and losses on asset disposals or business combinations, LIFO and mark-to-market commodity hedging and other unusual items. We adjust for LIFO to reflect operating results on a FIFO basis. Adjusted EBITDA is the primary measure of profitability we use to evaluate our businesses. Refer to Note 7 – "Segment Information" for reconciliations from adjusted EBITDA to net income on a consolidated basis.

Outlook

Trend Overview

Our businesses and results of operations are affected by various competitive and other factors including (i) the impact of global economic conditions on demand for our products, including the impact of imported products from competitors in certain regions where we operate; (ii) raw material pricing and availability, in particular the cost and availability of hardwood lumber for railroad crossties and softwood lumber for utility poles, scrap copper prices, and the cost and amount of coal tar available in global markets, which is negatively affected by reductions in blast furnace steel production; (iii) volatility in oil prices, which impacts the cost of coal tar and certain other raw materials, as well as selling prices and margins for certain of our products including carbon black feedstock, phthalic anhydride, and naphthalene; (iv) competitive conditions in global carbon pitch markets; and (v) changes in foreign exchange rates.

Railroad and Utility Products and Services

Historically, North American demand for crossties had been in the range of 18 million to 22 million crossties annually. According to the Railway Tie Association ("RTA"), total crosstie installations in 2022 were down 1.9 percent from the prior year, to approximately 18.4 million, of which 14.8 million were for Class I railroads. In the aggregate, spending by railroads is projected to be somewhat higher in 2023 in nominal terms; however, it will be marginally lower in real terms due to higher input costs for labor, crossties and other materials. In terms of the supply of crossties, the demand for pallet lumber has eased, which has improved crosstie availability, and the price has moderated on slowing consumer spending. As a result of the weakening demand for board roads and mats, availability for crosstie production by sawmills is improving which is encouraging for the railroads as their inventory-to-sales ratio has been depressed for many months, mainly because of low crosstie inventories. Nevertheless, the RTA demand forecast predicts slightly lower crosstie demand of 1.3 percent in 2023, or total industry demand of 18.2 million crossties. For 2024, the economy is estimated to grow and crosstie demand is expected to recover, with an increase of 2.4 percent, or total industry demand of 18.6 million crossties.

According to the Association of American Railroads ("AAR"), compared to the prior year, U.S. carload traffic for the year-to-date period through June 30, 2023 was up 0.6 percent and intermodal units were down 10.3 percent. For 2023 to-date, total combined U.S. traffic decreased 5.3 percent compared to last year. The recent rail traffic patterns demonstrate the contrasts in the broader economy. Rail intermodal is largely consumer goods, and recent spending on goods has cooled considerably. On the other hand, rail carloads of industrial products are performing much better, reflecting relative strength in automotive, mineral extraction, and other sectors.

With respect to our utility products business, the installed base for wood distribution poles in the United States is approximately 150 million and nearly half are 40 years old. Industry demand has historically been in the range of approximately two to four million poles annually. On an overall basis, we believe that the rate at which utilities purchase utility poles will grow as they continue replacement programs within their service territories. As a whole, the key factors that drive growth in the utility pole market include higher global energy consumption, expansion of the electric vehicle charging network, and investments in the global telecommunications industry. Now more than ever, utilities need to maintain and strengthen their infrastructure, referred to as hardening the electrical grid, to avoid interruptions in service as portions of the population work remotely. As long as there are not any extended supply chain disruptions, we anticipate that 2023 demand for pole replacements will be higher, as the overall industry is trending toward expanded and upgraded transmission networks. In addition, we believe there is a developing trend in the industry for utilities to maintain some additional inventory to prepare for potentially damaging storms that occur throughout the year.

With respect to raw materials, we expect the availability of poles to be affected as lumber demand continues to be relatively strong and, consequently, results in increased costs for pole material. Also, transportation costs, which include fuel costs, could experience some upward pressure and may affect the price of pole material delivered to the pole peelers from the forest. At the same time, utilities are working through various supply constraints by adjusting their ordering patterns and moving away from single-source supply, which may represent additional growth opportunities to gain market share.

Longer term, we are evaluating opportunities to potentially expand our market presence in the United States as well as certain overseas markets. We believe there remains an overall need for sustained investment in infrastructure and capacity expansion and with our vertical integration capabilities in wood treatment and strong customer relationships, we will ultimately benefit from increased demand.

For the overall segment, we believe a positive development involves the Infrastructure Investment and Jobs Act, which was signed into law on November 15, 2021, and will usher in more than a trillion dollars in new spending across eight years to improve the nation's roads, bridges, rail, Internet, water systems and more. As a global leader in water- and oil-borne preservatives serving many end markets with our wood-treatment technologies, we believe we are well-positioned to benefit from the new legislation. Our products are used in multiple infrastructure applications, including utility poles, railroad ties and wood for construction projects.

As part of optimizing our business, we continue to evaluate a number of opportunities to improve efficiencies in our operational processes, people and facilities. With our 14 North American RUPS treating facilities operating at less than full utilization, our goal is to either capture more volume through the existing facilities or consolidate our operating footprint. Actions taken in the past include the purchase of a 105-acre property in Leesville, Louisiana, to host a facility providing additional peeling and drying capacity for utility poles, the sale of our Sweetwater, Tennessee plant, exiting the Texas Electric Cooperatives' Jasper, Texas facility and relocating the production of utility products to our existing Somerville, Texas plant and the permanent closure of our Denver, Colorado wood treatment facility. Concurrent with the decision to close the Denver facility, we announced our plan to modernize and upgrade parts of our treating network, specifically at our facility in North Little Rock, Arkansas, which has been partly funded through proceeds from the sale of non-core assets, including the Denver facility.

Performance Chemicals

As most of the products sold by PC are copper-based products, changes in the price and availability of copper can have a significant impact on product pricing and margins. We attempt to moderate the variability in copper pricing over time by entering into hedging transactions for the majority of our copper needs, which primarily range from six months up to 36 months. These hedges typically match expected customer purchases and from time to time, we enter into forward transactions based upon long-term forecasted needs of copper.

Product demand for our PC business has historically been closely associated with consumer spending on home repair and remodeling projects in North America, and therefore, trends in existing home sales serve as a leading indicator. According to the National Association of Realtors® ("NAR"), total existing-home sales in June declined 3.3 percent from May and on a year-over-year basis, sales were lower by 18.9 percent. While existing-home sales declined, pending home sales in June registered a modest increase of 0.3 percent from the prior month. Home prices have held firm in most parts of the country as housing inventory remains low, and the limited supply is leading to multiple-offer situations, with one-third of homes being sold above the list price in June. The NAR projects that the market can easily absorb a doubling of housing inventory and if mortgage rates and inventory move favorably, pent-up demand could be realized in the near term.

According to the Leading Indicator of Remodeling Activity ("LIRA") reported by the Joint Center for Housing Studies of Harvard University, after more than a decade of continuous growth, annual expenditures for improvements and repairs to owner-occupied homes are expected to decline at an accelerating rate through the first half of 2024. The LIRA projects that year-over-year spending on homeowner improvements and maintenance will decline by 2.7 percent through the first quarter of 2024 and by 5.9 percent through mid-2024. Home remodeling activity continues to face strong headwinds from high interest rates, softening house price appreciation, and sluggish home sales. Annual spending on home improvements and repairs is expected to decrease from $486 billion through the second quarter of this year to $457 billion over the coming twelve months. Reductions in household moves will likely result in a decline in the remodeling and repair activity; however, the magnitude of the impact may be offset if homeowners with ultra-low mortgage rates continue to "upgrade-in-place" and renovate their current homes. In addition, since pressure-treated lumber prices are approximately 50-60 percent lower year-over-year at big-box retailers, outdoor residential projects are significantly more affordable than this time a year ago.

The Conference Board Consumer Confidence Index® increased in June to 110.1 and again in July to 117.0, which is the second straight month of gains and reflects the highest confidence level since July 2021. Despite rising interest rates, consumers are more upbeat, likely reflecting softening inflation as well as a favorable outlook on a labor market that continues to outperform expectations. As a result, consumer expectations for the next six months improved materially, indicating greater confidence about future business conditions and job availability.

Carbon Materials and Chemicals

The primary products produced by CMC are creosote, which is a registered pesticide in the United States and used primarily in the pressure treatment of railroad crossties, and carbon pitch, which is sold primarily to the aluminum industry for the production of carbon anodes used in the smelting of aluminum. We have realigned capacity in our CMC plants in North America and Europe over the past several years to levels required to meet creosote demand in North America for the treatment of railroad crossties. The CMC business currently supplies our North American RUPS business with its creosote requirements.

The availability of coal tar, the primary raw material for our CMC business, is linked to levels of metallurgical coke production. Currently, we are seeing weakening end market demand, which is allowing more availability of coal tar in the near term. However, as the global steel industry, excluding Asia, has reduced the production of steel using metallurgical coke, the volumes of coal tar have been reduced. We are actively working to mitigate the impacts of long-term decline of coal tar supply by gaining market acceptance for petroleum blended products. We are also investing in projects to increase distillation yields and balance raw material supply and cost with customer demand and pricing.

For the external markets served by our CMC business, we anticipate a slowdown in the near-term in manufacturing overall as well as in the steel, aluminum and carbon black industries. The June 2023 S&P Global Mobility (formerly IHS Markit Automotive Group) forecast sees global light-vehicle sales increasing by 5.6 percent from the prior year and reaching 83.6 million units globally in 2023, recovering from sales declines in 2021 and 2022 that were driven by production constraints rather than by a lack of consumer demand or willingness to buy. As for global light-vehicle production, the output is forecast to reach 85.6 million units in 2023 as supply chain issues are approaching a more normalized situation. However, the near-term outlook remains unclear as the new vehicle sales environment will be defined in the second half of the year by auto consumers pressured by potential vehicle affordability issues (rising interest rates, credit tightening, high vehicle prices) and production advances that could build back inventory more quickly than anticipated.

Seasonality and Effects of Weather on Operations

Our quarterly operating results fluctuate due to a variety of factors that are outside of our control, including inclement weather conditions, which in the past have affected operating results. Operations at some of our facilities have at times been reduced during the winter months. Moreover, demand for some of our products declines during periods of inclement weather. As a result of the foregoing, we anticipate that we may experience material fluctuations in quarterly operating results. Historically, our operating results have been significantly lower in the first and fourth calendar quarters as compared to the second and third calendar quarters.

Results of Operations – Comparison of Three Months Ended June 30, 2023 and 2022

Consolidated Results

Net sales are summarized by segment in the following table:

	Three Months Ended June 30,			
(Dollars in millions)	*2023*	*2022*	*Change*	*% Change*
Railroad and Utility Products and Services	$ 234.4	$ 204.2	$ 30.2	15 %
Performance Chemicals	180.9	149.6	31.3	21 %
Carbon Materials and Chemicals	161.9	148.7	13.2	9 %
	$ 577.2	$ 502.5	$ 74.7	15 %

RUPS net sales increased largely due to a net $20.3 million of pricing increases across multiple markets, particularly for crossties and domestic utility poles. Volume increases for crossties and utility poles also contributed to the increase. Foreign currency changes compared to the prior year period had an unfavorable impact on sales in the current year period of $0.8 million, mainly from our Australian utility pole business.

PC net sales increased as a result of global price increases of $21.0 million, or 14 percent in the current period, particularly in the Americas for our copper-based preservatives, along with volume increases of eight percent globally driven by the Americas and offset by Europe and Australasia. Foreign currency changes compared to the prior year period had an unfavorable impact on sales in the current year period of $2.3 million.

CMC net sales increased mainly due to $7.2 million of higher sales prices, primarily for carbon pitch driven by strong end markets and constrained raw material supply, along with volume increases of refined tar in North America. These increases were partly offset by price decreases for certain other products and volume decreases of phthalic anhydride in North America. Foreign currency changes compared to the prior year period from our international markets had an unfavorable impact on sales in the current year period of $1.3 million.

Cost of sales as a percentage of net sales was 81 percent for the quarter ended June 30, 2023, compared to 83 percent in the prior year period as global price increases have outpaced increased raw material and operating costs on a consolidated basis and across most of our businesses. Significant items impacting cost of sales in individual operating segments are discussed as part of "Segment adjusted EBITDA and adjusted EBITDA margin" herein.

Selling, general and administrative expenses for the quarter ended June 30, 2023 were $3.1 million higher when compared to the prior year period due mainly to an increase in compensation related costs along with an increase in travel, entertainment and advertising. These increases were partly offset by a reduction in professional services and insurance costs.

Interest expense for the quarter ended June 30, 2023 was $9.2 million higher when compared to the prior year period due to higher interest rates and a $1.6 million increase in write-off of debt issuance costs related to the repayment of the 2025 Notes as described in Note 12 – "Debt."

Income tax expense for the quarter ended June 30, 2023 increased due to higher income from continuing operations before income taxes when compared to the prior year period. This increase was partially offset by a lower estimated annual effective income tax rate when compared to the prior year period. The higher effective tax rate in the prior year period was driven by higher estimated non-deductible expenses, notably interest expense, as discussed in Note 8 – "Income Taxes."

Segment Results

Segment adjusted EBITDA and adjusted EBITDA margin is summarized in the following table:

	Three Months Ended June 30,			
(Dollars in millions)	*2023*	*2022*	*Change*	*% Change*
Adjusted EBITDA:				
Railroad and Utility Products and Services	$ 22.3	$ 13.2	$ 9.1	69 %
Performance Chemicals	32.3	20.4	11.9	58 %
Carbon Materials and Chemicals	15.7	21.0	(5.3)	-25 %
Total Adjusted EBITDA	$ 70.3	$ 54.6	$ 15.7	29 %
Adjusted EBITDA margin as a percentage of GAAP sales:				
Railroad and Utility Products and Services	9.5 %	6.5 %	3.0 %	46 %
Performance Chemicals	17.9 %	13.6 %	4.3 %	32 %
Carbon Materials and Chemicals	9.7 %	14.1 %	-4.4 %	-31 %

RUPS adjusted EBITDA increased due primarily to net sales price increases and $6.5 million from improved plant utilization, partly offset by higher raw material and operating costs of $23.2 million in our crosstie, utility pole and maintenance of way businesses in the current year period.

PC adjusted EBITDA increased as renegotiated customer contracts allowed us to increase prices to recapture prior year raw material and other operating cost increases, along with a global volume increase for wood treatment preservatives. These price increases more than offset $12.5 million of raw material cost increases from the prior year period.

CMC adjusted EBITDA decreased due to an increase of $17.2 million in raw material costs, particularly in Europe and North America, partly offset by higher pricing and higher volumes, which also improved plant utilization in North America compared to the prior year period.

Results of Operations – Comparison of Six Months Ended June 30, 2023 and 2022

Consolidated Results

Net sales are summarized by segment in the following table:

	Six Months Ended June 30,			
	2023	2022	Change	% Change
(Dollars in millions)				
Railroad and Utility Products and Services	$ 447.5	$ 387.6	$ 59.9	15 %
Performance Chemicals	327.8	286.0	41.8	15 %
Carbon Materials and Chemicals	315.3	288.2	27.1	9 %
	$ 1,090.6	$ 961.8	$ 128.8	13 %

RUPS net sales increased largely due to a net $44.0 million of pricing increases across multiple markets, particularly for crossties and domestic utility poles. Volume increases for crossties and higher activity in our crosstie recovery business also contributed to the increase. Foreign currency changes compared to the prior year period had an unfavorable impact on sales in the current year period of $1.5 million, mainly from our Australian utility pole business.

PC net sales increased as a result of global price increases of $46.0 million, or 16 percent in the current year period, particularly in the Americas for our copper-based preservatives, along with $16.2 million of volume increases in the Americas. These increases were offset, in part, by $15.8 million of volume decreases for wood treatment preservatives across most international markets, primarily Europe and Australasia. Foreign currency changes compared to the prior year period had an unfavorable impact on sales in the current year period of $4.7 million.

CMC net sales increased due mainly to $50.9 million of higher sales prices, primarily for carbon pitch driven by strong end markets and constrained raw material supply, partly offset by volume decreases of phthalic anhydride and carbon pitch. Foreign currency changes compared to the prior year period from our international markets had an unfavorable impact on sales in the current year period of $5.6 million.

Cost of sales as a percentage of net sales was 80 percent for the six months ended June 30, 2023, compared to 82 percent in the prior year period as global price increases have outpaced increased raw material and operating costs on a consolidated basis and across most of our businesses. Significant items impacting cost of sales in individual operating segments are discussed as part of "Segment adjusted EBITDA and adjusted EBITDA margin" herein.

Gain on sale of assets for the six months ended June 30, 2023 was related to a sale of assets of our former coal tar distillation facility located in China while the gain on sale of assets in the prior year was related to the sale of our utility pole treating facility in Sweetwater, Tennessee.

Selling, general and administrative expenses for the six months ended June 30, 2023 were $5.6 million higher when compared to the prior year period due mainly to an increase in compensation related costs along with an increase in travel, entertainment and advertising. These increases were partly offset by a reduction in professional services and insurance costs.

Interest expense for the six months ended June 30, 2023 was $13.4 million higher when compared to the prior year period due to higher interest rates and a $1.6 million increase in write-off of debt issuance costs related to the repayment of the 2025 Notes as described in Note 12 – "Debt."

Income tax expense for the six months ended June 30, 2023 increased due to higher income from continuing operations before income taxes when compared to the prior year period. This increase was partially offset by a lower estimated annual effective income tax rate when compared to the prior year period. The higher effective tax rate in the prior year period was driven by higher estimated non-deductible expenses, notably interest expense, as discussed in Note 8 – "Income Taxes."

Segment Results

Segment adjusted EBITDA and adjusted EBITDA margin is summarized in the following table:

(Dollars in millions)	*Six Months Ended June 30,* 2023	2022	*Change*	*% Change*
Adjusted EBITDA:				
Railroad and Utility Products and Services	$ 38.1	$ 24.8	$ 13.3	54 %
Performance Chemicals	58.6	41.2	17.4	42 %
Carbon Materials and Chemicals	35.1	41.2	(6.1)	-15 %
Total Adjusted EBITDA	$ 131.8	$ 107.2	$ 24.6	23 %
Adjusted EBITDA margin as a percentage of GAAP sales:				
Railroad and Utility Products and Services	8.5 %	6.4 %	2.1 %	33 %
Performance Chemicals	17.9 %	14.4 %	3.5 %	24 %
Carbon Materials and Chemicals	11.1 %	14.3 %	-3.2 %	-22 %

RUPS adjusted EBITDA increased due primarily to net sales price increases and $10.4 million from improved plant utilization, partly offset by higher raw material and operating costs of $44.4 million in our crosstie, utility pole and maintenance of way businesses in the current year period.

PC adjusted EBITDA increased as renegotiated customer contracts allowed us to increase prices to recapture prior year raw material and other operating cost increases, along with a 7.1 percent volume increase in the Americas for wood treatment preservatives. These price increases more than offset $25.4 million of raw material and selling, general and administrative cost increases from the prior year period.

CMC adjusted EBITDA decreased due to an increase of $60.5 million in raw material costs, particularly in North America and Europe, partly offset by higher pricing globally and lower operating costs in North America compared to the prior year period. Foreign currency changes from our international markets had an unfavorable impact on profitability in the current year period of $0.9 million.

Adjusted EBITDA Reconciliation. The following table reconciles net income to adjusted EBITDA on a consolidated basis:

(Dollars in millions)	*Three Months Ended June 30,* 2023	2022	*Six Months Ended June 30,* 2023	2022
Net income	$ 24.4	$ 11.6	$ 50.6	$ 30.4
Interest expense	20.3	11.1	34.3	20.8
Depreciation and amortization	14.4	13.4	28.4	27.6
Income tax provision	9.9	6.8	19.8	16.5
Discontinued operations	0.0	0.0	0.0	0.5
Sub-total	69.0	42.9	133.1	95.8
Adjustments to arrive at adjusted EBITDA:				
Impairment, restructuring and plant closure costs (benefits)(1)	0.0	(0.2)	0.1	0.0
(Gain) on sale of assets	0.0	0.0	(1.8)	(2.5)
LIFO expense(2)	0.2	5.1	0.4	6.8
Mark-to-market commodity hedging losses	1.1	6.8	0.0	7.1
Total adjustments	1.3	11.7	(1.3)	11.4
Adjusted EBITDA	$ 70.3	$ 54.6	$ 131.8	$ 107.2

(1) Includes costs associated with restructuring, sales and closures of certain RUPS and CMC facilities.
(2) The LIFO expense adjustment removes the entire impact of LIFO and effectively reflects the results as if we were on a FIFO inventory basis.

Cash Flow

Net cash used in operating activities for the six months ended June 30, 2023 was $2.1 million compared to net cash provided by operating activities of $21.2 million in the prior year. The decrease is primarily the result of higher working capital usage of $36.6 million, which more than offset the cash impact of the increase in net income in the current year period. The increase in working capital during the current year period is consistent with higher costs combined with a reduction in accounts payable as a result of the timing of purchases and related vendor payments.

Net cash used in investing activities for the six months ended June 30, 2023 was $60.6 million compared to net cash used in investing activities of $51.1 million in the prior year period driven primarily by capital expenditures. Capital expenditures for both periods include increased investment in growth projects, such as the expansion of our RUPS facility in North Little Rock, Arkansas and a yield enhancement project at our CMC facility in Nyborg, Denmark.

Net cash provided by financing activities for the six months ended June 30, 2023 was $78.6 million compared to $28.5 million of net cash provided by financing activities in the prior year. Cash provided by financing activities in the six months ended June 30, 2023 reflected net borrowings of $90.1 million partly offset by payments of debt issuance costs, repurchases of common stock and dividends paid. The cash provided by financing activities in the prior year period primarily reflected net borrowings of debt of $53.0 million partly offset by repurchases of common stock, payments of debt issuance costs and dividends paid.

Liquidity and Capital Resources

Our Credit Facility is described in Note 12 – “Debt.”

Restrictions on Dividends to Koppers Holdings

Koppers Holdings depends on the dividends from the earnings of Koppers Inc. and its subsidiaries to generate the funds necessary to meet its financial obligations, including the payment of any declared dividend of Koppers Holdings. The Credit Facility permits Koppers Inc. to make dividend payments to Koppers Holdings if certain conditions are met, including, among other permitted dividend payments, the ability to fund the payment of regularly scheduled dividends on and repurchases of Koppers Holdings common stock, in an aggregate amount per year not to exceed the greater of $50.0 million in any fiscal year, with unused amounts in any fiscal year being carried over to the succeeding fiscal year, and 6.0 percent of market capitalization.

Liquidity

As of June 30, 2023, the maximum amount available under the Credit Facility considering restrictions from debt covenants was approximately $301 million. As of December 31, 2022, the maximum amount available under the Credit Facility was approximately $412 million. The maximum amount available under the Credit Facility is increased by the amount of cash held by certain subsidiaries as defined by the Credit Facility.

Our need for cash in the next twelve months relates primarily to contractual obligations which includes debt service, pension plan funding, purchase commitments and operating leases, as well as working capital, capital maintenance programs, the funding of plant consolidation and rationalizations, dividends and share repurchases. We may also use cash to pursue other potential strategic acquisitions or voluntary pension plan contributions. Capital expenditures in 2023, excluding acquisitions, if any, are expected to total approximately $110 to $120 million and are expected to be funded by cash from operations. We anticipate that our liquidity will continue to be adequate to fund our cash requirements for at least the next twelve months.

We manage our working capital to increase our flexibility to pay down debt. Debt will fluctuate throughout any operating period based upon the timing of receipts from customers and payments to vendors. As of June 30, 2023, approximately 90 percent of accounts payable was current and 10 percent was 1-30 days past due. As of December 31, 2022, approximately 80 percent of accounts payable was current and 20 percent was 1-30 days past due.

Debt Covenants

The covenants that affect availability of the Credit Facility and which may restrict the ability of Koppers Inc. to pay dividends include the following financial ratios:

- The total net leverage ratio, calculated as of the last day of each fiscal quarter, is not permitted to exceed 5.0. The total net leverage ratio as of June 30, 2023 was 3.3.
- The cash interest coverage ratio, calculated as of the last day of each fiscal quarter, is not permitted to be less than 2.0. The cash interest coverage ratio as of June 30, 2023 was 4.7.

We are currently in compliance with all covenants governing the Credit Facility. Our continued ability to meet these financial covenants can be affected by events beyond our control; however, we currently expect that our net cash flows from operating activities and funds available from our Credit Facility will be sufficient to provide for our needs over at least the next twelve months.

Legal Matters

The information set forth in Note 16 to the Condensed Consolidated Financial Statements of Koppers Holdings Inc. included in Item 1 of this Part I is incorporated herein by reference.

Recently Issued Accounting Guidance

The information set forth in Note 2 to the Condensed Consolidated Financial Statements of Koppers Holdings Inc. included in Item 1 of this Part I is incorporated herein by reference.

Critical Accounting Policies

There have been no material changes to our critical accounting policies as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2022.

Environmental and Other Matters

The information set forth in Note 16 to the Condensed Consolidated Financial Statements of Koppers Holdings Inc. included in Item 1 of this Part I is incorporated herein by reference.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Except for the following update regarding interest rate sensitivity, there are no material changes to the disclosure on this matter made in our Annual Report on Form 10-K for the year ended December 31, 2022.

See Note 12 – “Debt” for discussion of the changes in debt and interest rate swap agreements. For variable rate debt, interest rate changes impact earnings and cash flows, assuming other factors are held constant. A one percentage point increase in interest rates would have decreased earnings and cash flows by approximately $7.0 million over a twelve-month period, holding other variables constant inclusive of interest rate swap effects.

ITEM 4. CONTROLS AND PROCEDURES

Our management, with the participation of the Chief Executive Officer and Chief Financial Officer and utilizing the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control – Integrated Framework (2013), have evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that these controls and procedures were effective as of the end of the period covered by this report. There were no changes in our internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) that occurred during the quarter ended June 30, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

The information set forth in Note 16 to the Condensed Consolidated Financial Statements of Koppers Holdings Inc. included in Item 1 of Part I of this report is incorporated herein by reference.

ITEM 1A. RISK FACTORS

There have been no material changes to the Risk Factors previously disclosed in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2022, except for the addition of the following risk factor.

The failure of financial institutions or transactional counterparties could adversely affect our current and projected business operations and our liquidity, financial condition and results of operations.

We regularly maintain domestic cash deposits in Federal Deposit Insurance Corporation ("FDIC") insured banks which exceed the FDIC insurance limits. We also maintain cash deposits in foreign banks where we operate, some of which are not insured or are only partially insured by the FDIC or other similar agencies. The failure of a bank, or events involving limited liquidity, defaults, non-performance or other adverse conditions in the financial or credit markets impacting financial institutions at which we maintain balances, or concerns or rumors about such events, may lead to disruptions in access to our bank deposits or otherwise adversely impact our liquidity and financial condition. There can be no assurance that our deposits in excess of the FDIC or other comparable insurance limits will be backstopped by the U.S. or applicable foreign government, or that any bank or financial institution with which we do business will be able to obtain needed liquidity from other banks, government institutions or by acquisition in the event of a failure or liquidity crisis.

In addition, instability, liquidity constraints or other distress in the financial markets, including the effects of bank failures, defaults, non-performance or other adverse developments that affect financial institutions could impair the ability of one or more of the banks participating in our current or any future credit agreement from honoring their commitments under the credit agreement or situations where the banks serve as a counterparty on our derivative swap agreements. This could have a material adverse effect on our business if we were not able to replace those commitments or locate other sources of liquidity on acceptable terms.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Not applicable.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

During the three months ended June 30, 2023, none of our directors or executive officers adopted or terminated any Rule 10b5-1 trading arrangement or any non-Rule 10b5-1 trading arrangement (as such terms are defined in Item 408 of Regulation S-X).

ITEM 6. EXHIBITS

10.1*	Amendment to the Koppers Holdings Inc. Benefit Restoration Plan, effective as of May 1, 2023
10.2*	Form of Restricted Stock Unit Issuance Agreement Non-Employee Director - Time Vesting
31.1*	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

	KOPPERS HOLDINGS INC. (REGISTRANT)
Date: August 3, 2023	By: /s/ JIMMI SUE SMITH Jimmi Sue Smith Chief Financial Officer (Principal Financial Officer and Duly Authorized Officer)

Exhibit 10.1

AMENDMENT TO THE
KOPPERS HOLDINGS INC. BENEFIT RESTORATION PLAN

WHEREAS, Koppers Holdings Inc. (the “Company”) sponsors the Koppers Holdings Inc. Benefit Restoration Plan (the “Plan”) for the benefit of certain key employees;

WHEREAS, the Company has reserved the right to amend the Plan in Section 7.1 of the Plan; and

WHEREAS, the Company wishes to amend the Plan to transfer sponsorship from Koppers Holdings Inc. to Koppers Inc.

NOW, THEREFORE, BE IT

RESOLVED, that the Plan shall be and hereby is amended, effective May 1, 2023, as follows:

1. Article 1 is hereby amended by amending the first sentence and inserting a second sentence immediately thereafter, to read as follows:

“Koppers Holdings Inc. (the "Company") established the Koppers Holdings Inc. Benefit Restoration Plan, effective January 1, 2007 (the "Effective Date"). Effective May 1, 2023, Koppers Holdings Inc. transferred sponsorship of the Koppers Holdings Inc. Benefit Restoration Plan to Koppers Inc., and the name of the Plan changed to Koppers Inc. Benefit Restoration Plan (the “Plan”).”

2. Section 2.7 of the Plan is hereby amended to read as follows:

“2.7 Company. Company means Koppers Inc. and any successor corporation.”

3. Section 2.20 of the Plan is hereby amended to read as follows:

“2.20 Plan. Plan means the Koppers Inc. Benefit Restoration Plan (prior to May 1, 2023, the Koppers Holdings Inc. Benefit Restoration Plan) as documented herein and as may be amended from time to time hereafter.”

IN WITNESS WHEREOF, the Company has caused this Amendment to be adopted, effective as of the date set forth above.

KOPPERS HOLDINGS INC.

By: _/s/ Stephanie L. Apostolou_________________

Title:_General Counsel and Secretary____________

ATTEST: _Caitlin M. Selewitz__________________

KOPPERS HOLDINGS INC.

RESTRICTED STOCK UNIT ISSUANCE AGREEMENT
NON-EMPLOYEE DIRECTOR - TIME VESTING

RECITALS

A. The Board has adopted the Plan for the purpose of retaining the services of selected employees, non-employee members of the Board (or the board of directors of any Affiliate) and consultants who provide services to the Corporation (or any Affiliate).

B. Participant is to render valuable services to the Company, and this Agreement is executed pursuant to, and is intended to carry out the purposes of, the Plan in connection with the Corporation's issuance of shares of Common Stock to Participant under the Plan.

C. All capitalized terms in this Agreement shall have the meaning assigned to them in this Agreement or the attached Appendix A.

NOW, THEREFORE, it is hereby agreed as follows:

1. Grant of Restricted Stock Units. The Corporation hereby awards to Participant, as of the Award Date, Restricted Stock Units under the Plan. Each Restricted Stock Unit represents the right to receive one share of Common Stock on the specified issuance date following the vesting of that unit. The number of shares of Common Stock subject to the awarded Restricted Stock Units, the applicable vesting schedule for those shares, the date on which the vested shares shall become issuable to Participant and the remaining terms and conditions governing the Award shall be as set forth in this Agreement.

AWARD SUMMARY

Award Date:	________
Number of Shares Subject to Award:	________ shares of Common Stock (the "Shares").
Vesting Schedule:	The Shares shall vest on the earlier to occur of (i) the date which is 365 days after the Award Date or (ii) the date of the next annual meeting of the Corporation's shareholders immediately following the Award Date, provided that the Participant remains in continuous Service as a director of the Corporation during such period (the "Vesting Date"). However, some or all of the Shares may vest earlier in accordance with the special vesting provisions of Paragraph 5.
Issuance Schedule:	The Shares in which Participant vests in accordance with the foregoing Vesting Schedule shall become issuable on the date specified in clause (i) or (ii) below as applicable: (i) If the Participant has not elected to defer receipt of such Shares pursuant to the terms of the Koppers Holdings Inc. Director Deferred Compensation Plan (the "Director Deferred Compensation Plan"), the

Vesting Date (or upon the date of earlier vesting pursuant to a Change in Control or termination of Service, if so provided herein). The actual issuance of such Shares pursuant to this clause (i) shall be effected on the applicable Issue Date or as soon as administratively practicable thereafter, but in no event later than the close of the calendar year in which such Issue Date occurs or (if later) the fifteenth day of the third calendar month following such Issue Date.

OR

(ii) If the Participant has elected to defer receipt of such Shares pursuant to the terms of the Director Deferred Compensation Plan, the date(s) determined pursuant to such election and the terms of the Director Deferred Compensation Plan.

Each date on which Shares are issued pursuant to this Agreement is referred to as an "Issue Date".

In no event, however, shall any fractional shares be issued under this Agreement, including by reason of Paragraph 4. Accordingly, the total number of shares of Common Stock to be issued pursuant to the Award shall, to the extent necessary, be rounded down to the next whole share in order to avoid the issuance of a fractional share.

2. Limited Transferability. Prior to the actual issuance of the Shares which vest hereunder, Participant may not transfer any interest in the Award or the underlying Shares; provided, however, any Shares which vest hereunder but which otherwise remain unissued at the time of Participant's death may be transferred (i) pursuant to the provisions of Participant's will or the laws of inheritance or to Participant's designated beneficiary or beneficiaries of this Award or, (ii) in the case of Shares issuable pursuant to an election to defer receipt of the Shares under the terms of the Director Deferred Compensation Plan, in accordance with the terms of the Director Deferred Compensation Plan. Participant may make a beneficiary designation with respect to Shares subject to clause (i) of this Award at any time by filing the appropriate form with the Plan Administrator or its designee.

3. Cessation of Service. Except as otherwise provided in Paragraph 5 below, should Participant cease Service for any reason prior to vesting in one or more Shares subject to this Award, then the Award will be immediately cancelled with respect to those unvested Shares. Participant shall thereupon cease to have any right or entitlement to receive any Shares under those cancelled units.

4. Stockholder Rights and Dividend Equivalents

(a) The holder of this Award shall not have any stockholder rights, including voting or dividend rights, with respect to the Shares subject to the Award until Participant becomes the record holder of those Shares following their actual issuance.

(b) Notwithstanding the foregoing, prior to the date on which Shares are credited to the Participant's Account under the Director Deferred Compensation Plan, if applicable, should any stock dividend, whether regular or extraordinary, be declared and paid on the outstanding Common Stock while one or more Shares remain subject to this Award (i.e., those Shares are not otherwise issued and outstanding for purposes of entitlement to the dividend or distribution), then Participant shall automatically be credited with an additional number of Restricted Stock Units equal to the number of shares of Common Stock which would have been paid on the Shares (plus the number of additional shares previously credited to Participant pursuant to the dividend equivalent right provisions of this Paragraph 4) at the time subject to this Award had those Shares been actually issued and outstanding and entitled to that dividend. The additional Restricted Stock Units so credited shall vest at the same time as the Shares to which they relate and shall be distributed to Participant concurrently with the issuance of those Shares on the applicable Issue Date.

(c) Notwithstanding the foregoing, should any cash dividend, whether regular or extraordinary, be declared and paid on the outstanding Common Stock while one or more Shares remain subject to this Award (i.e., those Shares are not otherwise issued and outstanding for purposes of entitlement to the dividend or distribution or those Shares have not been credited to the Participant's Account under the Deferred Compensation Plan), then a special book account shall be established for Participant and credited with a dollar amount equal to the amount of that dividend paid per share multiplied by the number of Restricted Stock Units at the time subject to this Award (plus the number of additional shares previously credited to Participant pursuant to the dividend equivalent right provisions of this Paragraph 4) as of the record date for the dividend. No later than as of (i) in the case of Shares not subject to a deferral election under the Director Deferred Compensation Plan, the Issue Date, or (ii) in the case of Shares subject to a deferral election under the Director Deferred Compensation Plan, the date as of which the Shares are credited to the Participant's Account under the Director Deferred Compensation Plan, each cash dividend amount credited to the special book account since the Award Date shall be converted into a book entry of an additional number of Restricted Stock Units determined by dividing (i) such cash dividend equivalent amount by (ii) the average of the Fair Market Value per share of Common Stock on each of the dates during such period on which those dividends on the outstanding Common Stock were paid, rounded down to the nearest full share. The additional Restricted Stock Units so credited shall vest at the same time as the Shares to which they relate and shall be distributed to Participant concurrently with the issuance of those Shares on the applicable Issue Date.

5. Special Vesting/Change in Control.

(a) Should Participant's Service terminate for any reason prior to the Vesting Date, then, on the date of such termination, Participant shall vest in a number of Shares equal to the number of Shares in which Participant would have been vested on the Vesting Date had Participant continued in the Corporation's Service through the Vesting Date *multiplied by a fraction*, the numerator of which is the number of days of Service Participant completed between the Award Date and the termination of Participant's Service, and the denominator of which is three hundred sixty-five (365). For purposes of this subparagraph (a), a Participant's Service shall be treated as terminated only if such termination constitutes a separation from service within the meaning of Code Section 409A.

(b) Immediately prior to the closing of a Change in Control, Participant shall vest in a number of Shares equal to the number of Shares in which Participant would have vested on the Vesting Date. If issuance of the Shares has not been deferred pursuant to an election under the Director Deferred Compensation Plan, then the Shares that vest under this subparagraph (b) will be issued on the Issue Date triggered by the Change in Control (or otherwise converted into the right to receive the same consideration per share of Common Stock payable to the other stockholders of the Corporation in consummation of that Change in Control and distributed at the same time as such stockholder payments). For purposes of the immediately preceding sentence, the Issue Date shall be the effective date of the Change in Control so long as it qualifies as a "change in the ownership or effective control" of the Corporation within the meaning of Section 409A(a)(2)(A)(v) of the Code and regulations thereunder and if it does not so qualify, the Issue Date shall be the Vesting Date. If issuance of the Shares has been deferred pursuant to an election under the terms of the Director Deferred Compensation Plan, then the Shares that vest under this subparagraph (b) will be issued on the Issue Date determined pursuant to the Director Deferred Compensation Plan.

(c) This Agreement shall not in any way affect the right of the Corporation to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

6. Adjustment in Shares. In the event that the Plan Administrator determines that any dividend or other distribution (other than regular cash dividends), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase or exchange of shares or other securities of the Corporation, or other similar corporate transaction or event affects the Shares such that an adjustment is determined by the Plan Administrator to be appropriate in order to prevent dilution or enlargement of the benefits intended to be made available under this Agreement, then the Plan Administrator shall, in such manner as it may deem equitable, adjust any or all of the number and type of shares (or other securities or property) subject to this Agreement, or, if the Plan Administrator deems it appropriate, make provision for a cash payment to the Participant.

7. Compliance with Laws and Regulations. The issuance of shares of Common Stock pursuant to the Award shall be subject to compliance by the Corporation and Participant with all applicable requirements of law relating thereto and with all applicable regulations of any stock exchange on which the Common Stock may be listed for trading at the time of such issuance.

8. Notices. Any notice required to be given or delivered to the Corporation under the terms of this Agreement shall be in writing and addressed to Secretary of the Corporation at its principal corporate office at 436 Seventh Avenue, Pittsburgh, PA 15219. Except to the extent electronic notice is expressly authorized hereunder, any notice required to be given or delivered to Participant shall be in writing and addressed to Participant at the address indicated below Participant's signature line on this Agreement. All notices shall be deemed effective upon personal delivery (or electronic delivery to the extent authorized hereunder) or upon deposit in the U.S. mail, postage prepaid and properly addressed to the party to be notified.

9. Successors and Assigns. Except to the extent otherwise provided in this Agreement, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the Corporation and its successors and assigns and Participant, Participant's assigns, the legal representatives, heirs and legatees of Participant's estate and any beneficiaries of the Award designated by Participant.

10. Construction. This Agreement and the Award evidenced hereby are made and granted pursuant to the Plan and are in all respects limited by and subject to the terms of the Plan. All decisions of the Plan Administrator with respect to any question or issue arising

under the Plan or this Agreement shall be conclusive and binding on all persons having an interest in the Award. The provisions of the Plan are incorporated in this Agreement in their entirety. In the event of any conflict between the provisions of this Agreement and the Plan, the provisions of the Plan shall control.

11. Governing Law. The interpretation, performance and enforcement of this Agreement shall be governed by the laws of the Commonwealth of Pennsylvania without resort to Pennsylvania's conflict-of-laws rules. Any arbitration, legal or equitable action, or any proceeding arising directly, indirectly, or otherwise in connection with, out of, related to, or from the Agreement, or any provision hereof, shall exclusively be filed and adjudicated in Allegheny County, Pennsylvania and no other venue.

12. Right to Continued Service. Nothing in this Agreement or in the Plan shall confer upon Participant any right to continue in Service for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Corporation (or any Affiliate employing or retaining Participant) or of Participant, which rights are hereby expressly reserved by each, to terminate Participant's Service at any time for any reason, with or without cause, unless such rights are otherwise limited pursuant to a separate agreement between the Corporation (or any Affiliate) and Participant.

13. Further Assurances. The Participant agrees, upon demand of the Corporation or the Plan Administrator, to do all acts and execute, deliver and perform all additional documents, instruments, and agreements that may be reasonably required by the Corporation or the Plan Administrator, as the case may be, to implement the provisions and purposes of this Agreement and the Plan.

14. Section 409A. This Award is intended to comply with the provisions of Section 409A of the Code and the regulations promulgated thereunder ("Section 409A") and shall be interpreted accordingly. Notwithstanding the foregoing or any provision of the Plan to the contrary, if the Award is subject to the provisions of Section 409A (and not excepted therefrom), the provisions of the Plan and this Agreement shall be administered, interpreted and construed in a manner necessary to comply with Section 409A (or disregarded to the extent such provision cannot be so administered, interpreted, or construed). If any payments or benefits hereunder may be deemed to constitute nonconforming deferred compensation subject to taxation under the provisions of Section 409A, Participant agrees that the Corporation may, without the consent of Participant, modify the Agreement and the Award to the extent and in the manner the Corporation deems necessary or advisable or to take such other action or actions, including an amendment or action with retroactive effect, that the Corporation deems appropriate in order either to preclude any such payments or benefits from being deemed "deferred compensation" within the meaning of Section 409A or to provide such payments or benefits in a manner that complies with the provisions of Section 409A such that they will not be taxable thereunder. Notwithstanding, the Corporation makes no representations and/or warranties with respect to compliance with Section 409A, and Participant recognizes and acknowledges that Section 409A could potentially impose upon Participant certain taxes or interest charges for which Participant is and shall remain solely responsible.

15. Survivability. The terms of this Agreement survive the termination of Participant's Service with the Corporation for any reason.

16. Severability. In the event that any provision of this Agreement is determined to be partially or wholly invalid, illegal or unenforceable in any jurisdiction, then such provision shall, as to such jurisdiction, be modified or restricted to the extent necessary to make such provision valid, binding and enforceable, or if such provision cannot be modified or restricted, then such provision shall, as to such jurisdiction, be deemed to be excised from this Agreement; provided, however, that the binding effect and enforceability of the remaining provisions of this Agreement, to the extent the economic benefits conferred upon the parties by virtue of this Agreement remain substantially unimpaired, shall not be affected or impaired in any manner, and any such invalidity, illegality or unenforceability with respect to such provisions shall not invalidate or render unenforceable such provision in any other jurisdiction.

IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year first indicated above.

KOPPERS HOLDINGS INC.	[Name]
By: ______________________________	___________________________
General Counsel and Secretary	Signature [Residence Address] [City, State, Zip Code]

APPENDIX A

DEFINITIONS

When used in this Agreement, the terms which are defined in the Plan shall have the meanings given to them in the Plan, as modified herein (if applicable). The following definitions shall be in effect under the Agreement:

A. Affiliate shall mean any entity that, directly or through one or more intermediaries, is controlled by the Corporation, and any entity in which the Corporation has a significant equity interest as determined by the Plan Administrator.

B. Agreement shall mean this Restricted Stock Unit Issuance Agreement.

C. Award shall mean the award of restricted stock units made to Participant pursuant to the terms of this Agreement.

D. Award Date shall mean the date the restricted stock units are awarded to Participant pursuant to the Agreement and shall be the date indicated in Paragraph 1 of the Agreement.

E. Board shall mean the Corporation's Board of Directors.

F. Change in Control of the Corporation shall have occurred in the event that:

(i) a person, partnership, joint venture, corporation or other entity, or two or more of any of the foregoing acting as a "person" within the meaning of Sections 13(d)(3) of the 1934 Act, other than the Corporation, a majority-owned subsidiary of the Corporation or an employee benefit plan of the Corporation or such subsidiary (or such plan's related trust), become(s) the "beneficial owner" (as defined in Rule 13d-3 under the 1934 Act) of fifty percent (50%) or more of the then outstanding voting stock of the Corporation;

(ii) during any period of two consecutive years, individuals who at the beginning of such period constitute the Board (together with any new Board member whose election by the Corporation's Board or whose nomination for election by the Corporation's stockholders, was approved by a vote of at least two-thirds of the Board members then still in office who either were Board members at the beginning of such period or whose election or nomination for election was previously so approved) cease for any reason to constitute a majority of the Board members then in office;

(iii) all or substantially all of the business of the Corporation is disposed of pursuant to a merger, consolidation or other transaction in which the Corporation is not the surviving corporation or the Corporation combines with another company and is the surviving corporation (unless the Corporation's stockholders immediately following such merger, consolidation, combination, or other transaction beneficially own, directly or indirectly, more than fifty percent (50%) of the aggregate voting stock or other ownership interests of (x) the entity or entities, if any, that succeed to the business of the Corporation or (y) the combined company);

(iv) the acquisition, directly or indirectly, by any person or related group of persons (other than the Corporation or a person that directly or indirectly controls, is controlled by, or is under common control with, the Corporation) of beneficial ownership (within the meaning of Rule 13d-3 of the Act) of securities possessing more than twenty percent (20%) of the total combined voting power of the Corporation's outstanding securities pursuant to a tender or exchange offer made directly to the Corporation's stockholders which the Board does not recommend such stockholders to accept.

G. Code shall mean the Internal Revenue Code of 1986, as amended.

H. Common Stock shall mean shares of the Corporation's common stock.

I. Corporation shall mean Koppers Holdings Inc., a Pennsylvania corporation, and any successor corporation to all or substantially all of the assets or voting stock of Koppers Holdings Inc. which shall by appropriate action adopt the Plan.

J. Fair Market Value per share of Common Stock on any relevant date shall be determined in accordance with the following provisions:

(i) If the Common Stock is at the time traded on the Nasdaq Global Market, then the Fair Market Value shall be the closing selling price per share of Common Stock at the close of regular hours trading (i.e., before after-hours trading begins) on the Nasdaq Global Market on the date in question, as such price is reported by the National Association of Securities Dealers for that particular Stock Exchange. If there is no closing selling price for the Common Stock on the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

(ii) If the Common Stock is at the time listed on any other Stock Exchange, then the Fair Market Value shall be the closing selling price per share of Common Stock at the close of regular hours trading (i.e., before after-hours trading begins) on the date in question on the Stock Exchange determined by the Plan Administrator to be the primary market for the Common Stock, as such price is officially quoted in the composite tape of transactions on such exchange. If there is no closing selling price for the Common Stock on the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

K. 1934 Act shall mean the Securities Exchange Act of 1934, as amended from time to time.

L. Participant shall mean the person to whom the Award is made pursuant to the Agreement.

M. Plan shall mean the Corporation's 2020 Long Term Incentive Plan.

N. Plan Administrator shall mean the committee(s) designated by the Board to administer the Plan.

O. Restricted Stock Units shall mean Restricted Stock Units awarded pursuant to Section 6(c) of the Plan.

P. Service shall mean Participant's performance of services for the Corporation (or any Affiliate) in the capacity of an employee, a non-employee member of the Board or a consultant. For purposes of this Agreement, Participant shall be deemed to cease Service immediately upon the occurrence of either of the following events: (i) Participant no longer performs services in any of the foregoing capacities for the Corporation (or any Affiliate) or (ii) the entity for which Participant performs such services ceases to remain an Affiliate of the Corporation, even though Participant may subsequently continue to perform services for that entity. Service shall not be deemed to cease during a period of military leave, sick leave or other personal leave approved by the Corporation or any Affiliate; provided, however, that except to the extent otherwise required by law or expressly authorized by the Plan Administrator or by the Corporation's or an Affiliate's written policy on leaves of absence, no Service credit shall be given for vesting purposes for any period the Participant is on a leave of absence.

Q. Stock Exchange shall mean the Nasdaq Global Market, the New York Stock Exchange or such other stock exchange on which Common Stock is listed.

Exhibit 31.1

CERTIFICATIONS

I, Leroy M. Ball, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Koppers Holdings Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-5(f) and 15d-15(f)) for the registrant and have:
   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2023

/s/ LEROY M. BALL
Leroy M. Ball
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Jimmi Sue Smith, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Koppers Holdings Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-5(f) and 15d-15(f)) for the registrant and have:
    a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
    c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 3, 2023

/s/ JIMMI SUE SMITH
Jimmi Sue Smith
Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Koppers Holdings Inc. (the “Company”) on Form 10-Q for the quarter ending June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), each of the undersigned hereby certifies in his or her capacity as an officer of the Company, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ LEROY M. BALL	/s/ JIMMI SUE SMITH
Leroy M. Ball	Jimmi Sue Smith
President and Chief Executive Officer	Chief Financial Officer
August 3, 2023	August 3, 2023