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

FORM 10-Q

(Mark one)

☒ **Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the quarterly period ended June 30, 2023

or

☐ **Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the transition period from___________to

Commission File No. 0-07099

CECO ENVIRONMENTAL CORP.
(Exact name of registrant as specified in its charter)

Delaware	**13-2566064**
(State or other jurisdiction of Incorporation or organization)	**(IRS Employer Identification No.)**
14651 North Dallas Parkway Suite 500 Dallas, Texas	**75254**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (214) 357-6181

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value $0.01 per share	CECO	The NASDAQ Stock Market LLC

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 provided 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 ☒

The number of shares outstanding of each of the issuer's classes of common equity, as of the latest practical date: 34,765,230 shares of common stock, par value $0.01 per share, as of August 1, 2023.

CECO ENVIRONMENTAL CORP. AND SUBSIDIARIES
QUARTERLY REPORT ON FORM 10-Q
For the quarter ended June 30, 2023

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PART I – FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

CONDENSED CONSOLIDATED BALANCE SHEETS

(in thousands, except per share data)	(unaudited) June 30, 2023	December 31, 2022
ASSETS		
Current assets:		
Cash and cash equivalents	$ 47,617	$ 45,522
Restricted cash	935	1,063
Accounts receivable, net	126,663	83,086
Costs and estimated earnings in excess of billings on uncompleted contracts	61,905	71,016
Inventories, net	31,828	26,526
Prepaid expenses and other current assets	15,634	12,174
Prepaid income taxes	6,456	1,271
Total current assets	291,038	240,658
Property, plant and equipment, net	24,194	20,828
Right-of-use assets from operating leases	11,530	11,373
Goodwill	199,736	183,197
Intangible assets – finite life, net	42,899	35,251
Intangible assets – indefinite life	9,559	9,508
Deferred income taxes	816	829
Deferred charges and other assets	2,846	3,077
Total assets	$ 582,618	$ 504,721
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Current portion of debt	$ 4,313	$ 3,579
Accounts payable and accrued expenses	116,254	107,198
Billings in excess of costs and estimated earnings on uncompleted contracts	61,365	32,716
Notes payable	2,500	—
Income taxes payable	3,788	3,207
Total current liabilities	188,220	146,700
Other liabilities	13,611	15,129
Debt, less current portion	137,322	107,625
Deferred income tax liability, net	7,991	8,666
Operating lease liabilities	8,326	8,453
Total liabilities	355,470	286,573
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, $.01 par value; 10,000 shares authorized, none issued	—	—
Common stock, $.01 par value; 100,000,000 shares authorized, 34,738,126 and 34,381,668 shares issued and outstanding at June 30, 2023 and December 31, 2022, respectively	347	344
Capital in excess of par value	252,406	250,174
Accumulated loss	(13,596)	(19,298)
Accumulated other comprehensive loss	(17,091)	(17,996)
Total CECO shareholders' equity	222,066	213,224
Noncontrolling interest	5,082	4,924
Total shareholders' equity	227,148	218,148
Total liabilities and shareholders' equity	$ 582,618	$ 504,721

The notes to the condensed consolidated financial statements are an integral part of the above statements.

CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(unaudited)

(in thousands, except per share data)	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 sales	$ 129,181	$ 105,375	$ 241,744	$ 197,811
Cost of sales	89,364	73,700	167,034	139,708
Gross profit	39,817	31,675	74,710	58,103
Selling and administrative expenses	28,451	22,988	55,644	41,640
Amortization and earnout expenses	2,273	1,450	4,020	2,900
Acquisition and integration expenses	332	1,491	824	2,540
Executive transition expenses	158	—	158	—
Restructuring expenses	—	—	—	73
Income from operations	8,603	5,746	14,064	10,950
Other income (expense), net	121	1,936	(453)	1,478
Interest expense	(3,750)	(1,098)	(6,158)	(1,920)
Income before income taxes	4,974	6,584	7,453	10,508
Income tax expense	984	1,860	993	2,972
Net income	3,990	4,724	6,460	7,536
Noncontrolling interest	266	339	759	356
Net income attributable to CECO Environmental Corp.	$ 3,724	$ 4,385	$ 5,701	$ 7,180
Earnings per share:				
Basic	$ 0.11	$ 0.13	$ 0.17	$ 0.21
Diluted	$ 0.11	$ 0.13	$ 0.16	$ 0.20
Weighted average number of common shares outstanding:				
Basic	34,619,216	34,873,238	34,531,050	34,961,645
Diluted	35,143,782	35,041,152	35,171,727	35,119,685

The notes to the condensed consolidated financial statements are an integral part of the above statements.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(unaudited)

(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	$ 3,990	$ 4,724	$ 6,460	$ 7,536
Other comprehensive income, net of tax:				
Foreign currency translation gain (loss)	139	(2,966)	905	(3,497)
Comprehensive income	$ 4,129	$ 1,758	$ 7,365	$ 4,039

The notes to the condensed consolidated financial statements are an integral part of the above statements.

CONDENSED CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(unaudited)

	Common Stock Shares	Common Stock Amount	Capital in excess of par value	Accumulated Loss	Accumulated Other Comprehensive Loss	Non-controlling interest	Total Shareholders' Equity
Balance December 31, 2022	34,382	$ 344	$ 250,174	$ (19,298)	$ (17,996)	$ 4,924	$ 218,148
Net income for the three months ended March 31, 2023	—	—	—	1,978	—	491	2,469
Exercise of stock options	52	1	611	—	—	—	612
Restricted stock units issued	123	1	(622)	—	—	—	(621)
Share based compensation earned	—	—	808	—	—	—	808
Translation gain	—	—	—	—	766	—	766
Balance March 31, 2023	34,557	$ 346	$ 250,971	$ (17,320)	$ (17,230)	$ 5,415	$ 222,182
Net income for the three months ended June 30, 2023	—	—	—	3,724	—	266	3,990
Exercise of stock options	25	—	317	—	—	—	317
Restricted stock units issued	132	1	(271)	—	—	—	(270)
Share based compensation earned	24	—	1,389	—	—	—	1,389
Translation gain	—	—	—	—	139	—	139
Noncontrolling interest distributions	—	—	—	—	—	(599)	(599)
Balance June 30, 2023	34,738	$ 347	$ 252,406	$ (13,596)	$ (17,091)	$ 5,082	$ 227,148

	Common Stock Shares	Common Stock Amount	Capital in excess of par value	Accumulated Loss	Accumulated Other Comprehensive Loss	Non-controlling interest	Total Shareholders' Equity
Balance December 31, 2021	35,028	$ 350	$ 252,989	$ (36,715)	$ (12,070)	$ 1,403	$ 205,957
Net income for the three months ended March 31, 2022	—	—	—	2,792	—	18	2,810
Restricted stock units issued	34	—	(67)	—	—	—	(67)
Share based compensation earned	14	—	953	—	—	—	953
Translation loss	—	—	—	—	(531)	—	(531)
Noncontrolling interest distributions	—	—	—	—	—	(900)	(900)
Fair value of noncontrolling interest equity issued (see Note 14)	—	—	—	—	—	5,000	5,000
Balance March 31, 2022	35,076	$ 350	$ 253,875	$ (33,923)	$ (12,601)	$ 5,521	$ 213,222
Net income for the three months ended March 31, 2022	—	—	—	4,385	—	339	4,724
Restricted stock units issued	183	2	(211)	—	—	—	(209)
Share based compensation earned	—	—	915	—	—	—	915
Common stock repurchase and retirement	(725)	(7)	(4,317)	—	—	—	(4,324)
Translation loss	—	—	—	—	(2,966)	—	(2,966)
Fair value of noncontrolling interest equity issued (see Note 14)	—	—	—	—	—	(901)	(901)
Balance June 30, 2022	34,534	$ 345	$ 250,262	$ (29,538)	$ (15,567)	$ 4,959	$ 210,461

The notes to the condensed consolidated financial statements are an integral part of the above statements.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

(in thousands)	Six months ended June 30, 2023	2022
Cash flows from operating activities:		
Net income	$ 6,460	$ 7,536
Adjustments to reconcile net income to net cash (used in) provided by operating activities:		
Depreciation and amortization	5,650	4,668
Unrealized foreign currency gain	(863)	(5)
Fair value adjustment to earnout liabilities	296	—
Earnout payments	—	(1,007)
Gain (loss) on sale of property and equipment	78	(7)
Debt discount amortization	182	187
Share-based compensation expense	1,967	1,792
Bad debt (recoveries) expense	(23)	441
Inventory reserve expense	551	110
Changes in operating assets and liabilities, net of acquisitions:		
Accounts receivable	(39,181)	(18,582)
Costs and estimated earnings in excess of billings on uncompleted contracts	9,596	597
Inventories	(4,081)	(3,393)
Prepaid expense and other current assets	(8,319)	637
Deferred charges and other assets	(306)	2,472
Accounts payable and accrued expenses	3,902	16,538
Billings in excess of costs and estimated earnings on uncompleted contracts	26,005	7,846
Income taxes payable	601	1,266
Other liabilities	(3,126)	(2,405)
Net cash (used in) provided by operating activities	(611)	18,691
Cash flows from investing activities:		
Acquisitions of property and equipment	(3,919)	(1,432)
Net proceeds from sale of assets	—	7
Net cash paid for acquisitions	(24,142)	(37,372)
Net cash used in investing activities	(28,061)	(38,797)
Cash flows from financing activities:		
Borrowings on revolving credit lines	65,300	47,600
Repayments on revolving credit lines	(33,400)	(24,900)
Borrowing on long-term debt	—	11,000
Repayments of long-term debt	(1,652)	(1,469)
Deferred financing fees paid	—	(130)
Deferred consideration paid for acquisitions	(857)	—
Payments on finance leases and financing liability	(450)	(293)
Proceeds from employee stock purchase plan and exercise of stock options	1,156	71
Noncontrolling interest distributions	(599)	(900)
Common stock repurchase	—	(4,324)
Net cash provided by financing activities	29,498	26,655
Effect of exchange rate changes on cash, cash equivalents and restricted cash	1,141	(3,091)
Net increase in cash, cash equivalents and restricted cash	1,967	3,458
Cash, cash equivalents and restricted cash at beginning of period	46,585	31,995
Cash, cash equivalents and restricted cash at end of period	$ 48,552	$ 35,453
Cash paid during the period for:		
Interest	$ 5,380	$ 1,821
Income taxes	$ 7,605	$ 970

The notes to the condensed consolidated financial statements are an integral part of the above statements.

1. Basis of Reporting for Consolidated Financial Statements

The accompanying unaudited condensed consolidated financial statements of CECO Environmental Corp. and its subsidiaries (the “Company,” “CECO,” “we,” “us,” or “our”) have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) have been condensed or omitted pursuant to those rules and regulations. In the opinion of management, the accompanying unaudited condensed consolidated financial statements of the Company contain all adjustments (consisting only of normal recurring adjustments) necessary to present fairly the financial position as of June 30, 2023 and the results of operations, cash flows and shareholders’ equity for the three and six months ended June 30, 2023 and 2022. The results of operations for the three and six months ended June 30, 2023 are not necessarily indicative of the results to be expected for the full year. The balance sheet as of December 31, 2022 has been derived from the audited consolidated financial statements included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2022 as filed with the SEC on March 6, 2023 (the “Form 10-K”).

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

These financial statements and accompanying notes should be read in conjunction with the audited financial statements and the notes thereto included in the Form 10-K.

Unless otherwise indicated, all balances within tables are in thousands, except per share amounts.

2. New Financial Accounting Pronouncements

Accounting Standards Adopted in Fiscal 2023

On January 1, 2023, the beginning of the Company's fiscal year, the Company adopted Accounting Standards Update ("ASU") 2021-08, Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers, which addresses how an acquirer should recognize and measure revenue contracts acquired in a business combination. The adoption of ASU 2021-08 did not have a material impact on the Company's financial statements.

Accounting Standards to be Adopted

None.

3. Accounts Receivable

Accounts receivable consisted of the following:

(in thousands)	June 30, 2023	December 31, 2022
Accounts receivable	$ 130,919	$ 87,306
Allowance for doubtful accounts	(4,256)	(4,220)
Total accounts receivable, net	$ 126,663	$ 83,086

Balances billed but not paid by customers under retainage provisions in contracts within the Condensed Consolidated Balance Sheets amounted to approximately $1.4 million and $1.6 million at June 30, 2023 and December 31, 2022, respectively. Retainage receivables on contracts in progress are generally collected within a year or two subsequent to contract completion, and are recorded in either "Accounts receivable, net" or "Deferred charges and other assets" within the Condensed Consolidated Balance Sheets depending on timing of expected collection.

Provision for credit losses was $(0.1) million and $0.4 million for the three months ended June 30, 2023 and 2022, respectively, and zero and $0.4 million for the six months ended June 30, 2023 and 2022, respectively.

4. Inventories

Inventories consisted of the following:

(in thousands)	June 30, 2023	December 31, 2022
Raw materials	$ 22,833	$ 19,774
Work in process	10,086	7,183
Finished goods	2,235	2,436
Obsolescence allowance	(3,326)	(2,867)
Total inventories	$ 31,828	$ 26,526

Amounts credited to the allowance for obsolete inventory and charged to cost of sales amounted to $0.4 million and $(0.1) million for the three months ended June 30, 2023 and 2022, respectively, and $0.6 million and $0.1 million for the six months ended June 30, 2023 and 2022, respectively.

5. Goodwill and Intangible Assets

Goodwill activity for the six months ended June 30, 2023 and the year ended December 31, 2022 was as follows:

(in thousands)	Six months ended June 30, 2023		Year ended December 31, 2022	
Goodwill / Tradename	Goodwill	Tradename	Goodwill	Tradename
Balance at beginning of period	$ 183,197	$ 9,508	$ 161,183	$ 9,629
Acquisitions	15,450	—	23,312	—
Foreign currency translation	1,089	51	(1,298)	(121)
Balance at end of period	$ 199,736	$ 9,559	$ 183,197	$ 9,508

Finite life intangible assets consisted of the following:

	June 30, 2023		December 31, 2022	
(in thousands)	Cost	Accum. Amort.	Cost	Accum. Amort.
Technology	$ 15,087	$ 13,869	$ 14,457	$ 13,729
Customer lists	94,751	60,255	85,719	57,540
Tradenames	12,634	4,344	11,604	3,768
Foreign currency adjustments	(1,099)	6	(1,864)	(372)
Total intangible assets – finite life	$ 121,373	$ 78,474	$ 109,916	$ 74,665

Finite life intangible asset activity for the six months ended June 30, 2023 and 2022 was as follows:

(in thousands)	2023	2022
Intangible assets – finite life, net at beginning of period	$ 35,251	$ 25,841
Amortization expense	(3,430)	(2,789)
Acquisitions	10,708	13,280
Foreign currency adjustments	370	(538)
Intangible assets – finite life, net at end of period	$ 42,899	$ 35,794

Amortization expense of finite life intangible assets was $1.7 million and $1.5 million for the three months ended June 30, 2023 and 2022, respectively, and $3.4 million and $2.8 million for the six months ended June 30, 2023 and 2022, respectively. Amortization over the next five years for finite life intangibles is expected to be $3.7 million for the remainder of 2023, $7.1 million in 2024, $6.1 million in 2025, $4.8 million in 2026, and $4.7 million in 2027.

The Company completes its goodwill and indefinite life intangible asset impairment assessment annually in the fourth quarter, or more often if circumstances require. As a part of its impairment assessment, the Company first qualitatively assesses whether current events or changes in circumstances lead to a determination that it is more likely than not, defined as a likelihood of more than 50 percent, that the fair value of a reporting unit or indefinite life intangible asset is less than its carrying amount. If there is a qualitative determination that the fair value is more likely than not greater than the carrying value, the Company does not quantitatively test for impairment. If this qualitative assessment indicates a more likely than not potential that the asset may be impaired, the estimated fair value is calculated. If the estimated fair value is less than carrying value, an impairment charge is recorded.

As of June 30, 2023, the Company reviewed its previous forecasts and assumptions based on its current projections, which are subject to various risks and uncertainties, including projected revenue, projected operational profit, terminal growth rates, and the cost of capital. The Company did not identify any triggering events during the three or six months ended June 30, 2023 that would require an interim impairment assessment of goodwill or intangible assets.

The Company's assumptions about future conditions important to its assessment of potential impairment of its goodwill and indefinite life intangible assets are subject to uncertainty, and the Company will continue to monitor these conditions in future periods as new information becomes available, and will update its analysis accordingly.

6. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consisted of the following:

(in thousands)	June 30, 2023	December 31, 2022
Trade accounts payable, including amounts due to subcontractors	$ 80,492	$ 73,407
Compensation and related benefits	6,353	9,577
Accrued warranty	3,958	3,691
Contract liability	6,729	4,516
Short-term operating lease liability	3,520	3,228
Other	15,202	12,779
Total accounts payable and accrued expenses	$ 116,254	$ 107,198

7. Senior Debt

Debt consisted of the following:

(in thousands)	June 30, 2023	December 31, 2022
Outstanding borrowings under the Credit Facility (as defined below)		
Term loan payable in quarterly principal installments of $550 through September 2023, $825 through September 2025 and $1,100 thereafter with balance due upon maturity in December 2026.		
Term loan	$ 40,207	$ 41,309
Revolving credit facility	93,200	61,300
Total outstanding borrowings under the Credit Facility	133,407	102,609
Outstanding borrowings under the joint venture term debt	9,406	10,083
Unamortized debt discount	(1,178)	(1,488)
Total outstanding borrowings	141,635	111,204
Less: current portion	(4,313)	(3,579)
Total debt, less current portion	$ 137,322	$ 107,625

Scheduled principal payments under the Credit Facility and joint venture term debt are $2.5 million remaining in 2023, $4.9 million in 2024, $5.2 million in 2025, $126.3 million in 2026, and $3.9 million in 2027.

Credit Facility

As of June 30, 2023 and December 31, 2022, $20.4 million and $18.9 million of letters of credit were outstanding, respectively. Total unused credit availability, in consideration of borrowing limitations, under the Company's senior secured term loan and senior secured revolver loan with sub-facilities for letters of credit, swing-line loans and senior secured multi-currency loans (the "Credit Facility") was $26.4 million and $59.8 million at June 30, 2023 and December 31, 2022, respectively. Revolving loans may be borrowed, repaid and reborrowed until December 17, 2026, at which time all outstanding balances of the Credit Facility must be repaid.

At the Company's option, revolving loans and the term loans accrue interest at a per annum rate based on either the highest of (a) the federal funds rate plus 0.5%, (b) the Agent's prime lending rate, (c) Daily Simple SOFR plus the Daily Simple SOFR Adjustment of 0.11448% plus 1.0%, or (d) 1.0%, plus a margin ranging from 1.75% to 2.75% depending on the Company's Consolidated Leverage Ratio ("Base Rate"), or (d) a one/three/six-month Term SOFR Rate (as defined in the Credit Facility) plus the Term SOFR Adjustment ranging from 0.11% to 0.43% plus 1.75% to 2.75% depending on the Company's Consolidated Leverage Ratio. Interest on swing line loans is the Base Rate.

Interest on Base Rate loans is payable quarterly in arrears on the last day of each calendar quarter and at maturity. Interest on Term SOFR rate loans is payable on the last date of each applicable Interest Period (as defined in the agreement), but in no event less than once every three months and at maturity. The weighted average stated interest rate on outstanding borrowings was 8.06% and 6.75% at June 30, 2023 and December 31, 2022, respectively.

Under the terms of the Credit Facility, the Company is required to maintain certain financial covenants, including the maintenance of a Consolidated Net Leverage Ratio (as defined in the Credit Facility). Through September 30, 2023, the maximum Consolidated Net Leverage Ratio is 3.75, after which time it will decrease to 3.50 until the end of the term of the Credit Facility.

The Company has granted a security interest in substantially all of its assets to secure its obligations pursuant to the Credit Facility. The Company's obligations under the Credit Facility are guaranteed by the Company's domestic subsidiaries and such guaranty obligations are secured by a security interest on substantially all the assets of such subsidiaries, including certain real property. The Company's obligations under the Credit Facility may also be guaranteed by the Company's material foreign subsidiaries to the extent no adverse tax consequences would result to the Company.

As of June 30, 2023 and December 31, 2022, the Company was in compliance with all related financial and other restrictive covenants under the Credit Facility.

Joint Venture Debt

On March 7, 2022, the Company's Effox-Flextor-Mader, Inc. joint venture ("EFM JV") entered into a loan agreement secured by the assets of the EFM JV in the aggregate principal amount of $11.0 million for the acquisition of General Rubber, LLC ("GRC"). As of June 30, 2023 and December 31, 2022, $9.4 million and $10.0 million was outstanding under the loan, respectively. Principal will be paid back to the lender monthly with the final installment due by February 27, 2027. Interest is accrued at the per annum rate based on EFM JV's choice of the 1/3/6 month Term SOFR rate plus 3.25%, with a floor rate of 3.75%. Interest is paid monthly on the last day of each month. The interest rate at June 30, 2023 and December 31, 2022 was 8.40% and 6.60%, respectively. As of June 30, 2023 and December 31, 2022, the EFM JV was in compliance with all related financial and other restrictive covenants under this loan agreement. This loan balance does not impact the Company's borrowing capacity or the financial covenants under the Credit Facility.

Foreign Debt

The Company has a number of bank guarantee facilities and bilateral lines of credit in various foreign countries currently supported by cash, letters of credit or pledged assets and collateral under the Credit Facility. In March 2023, the Company amended the Credit Facility, allowing letters of credit and bank guarantee issuances of up to $80.0 million from the bilateral lines of credit secured through pledged assets and collateral under the Credit Facility. As of June 30, 2023 and December 31, 2022, $38.5 million and $30.4 million in bank guarantees were outstanding, respectively. In addition, a subsidiary of the Company located in the Netherlands has a Euro-denominated bank guarantee agreement secured by local assets under which $2.5 million and $0.6 million in bank guarantees were outstanding as of June 30, 2023 and December 31, 2022, respectively.

8. Earnings per Share

The computational components of basic and diluted earnings per share for the three months ended June 30, 2023 and 2022 are as follows:

(in thousands)	2023	2022
Numerator (for basic and diluted earnings per share)		
Net income attributable to CECO Environmental Corp.	$ 3,724	$ 4,385
Denominator		
Basic weighted-average shares outstanding	34,619	34,873
Common stock equivalents arising from stock options and restricted stock awards	525	168
Diluted weighted-average shares outstanding	35,144	35,041

The computational components of basic and diluted earnings per share for the six months ended June 30, 2023 and 2022 are as follows:

(in thousands)	2023	2022
Numerator (for basic and diluted earnings per share)		
Net income attributable to CECO Environmental Corp.	$ 5,701	$ 7,180
Denominator		
Basic weighted-average shares outstanding	34,531	34,962
Common stock equivalents arising from stock options and restricted stock awards	641	158
Diluted weighted-average shares outstanding	35,172	35,120

Options and restricted stock units included in the computation of diluted earnings per share are calculated using the treasury stock method. For the three months ended June 30, 2023 and 2022, 1.3 and 1.9 million, respectively, and for the six months ended June 30, 2023 and 2022, 0.7 million and 2.0 million, respectively, of outstanding options and restricted stock units were excluded from the computation of diluted earnings per share due to their having an anti-dilutive effect.

Once a restricted stock unit vests, it is included in the computation of weighted average shares outstanding for purposes of basic and diluted earnings per share.

Common Stock Repurchase

On May 10, 2022, the Company's Board of Directors authorized a share repurchase program under which the Company may purchase up to $20.0 million of its outstanding shares of common stock through April 30, 2025. The authorization permits the Company to repurchase shares in the open market, through accelerated share repurchases, block trades, Rule 10b5-1 trading plans or through privately negotiated transactions in accordance with applicable laws, rules and regulations. Under the program, the Company repurchased zero and 725,000 shares at a cost of zero and $4.3 million during the three and six months ended June 30, 2023 and 2022, respectively.

9. Share-Based Compensation

The Company accounts for share-based compensation in accordance with Accounting Standards Codification (“ASC”) Topic 718, “Compensation – Stock Compensation,” which requires the Company to recognize compensation expense for share-based awards, measured at the fair value of the awards at the grant date. The Company recognized $1.2 million and $0.9 million of share-based compensation related expense during the three months ended June 30, 2023 and 2022, respectively, and $2.0 million and $1.8 million of share-based compensation related expense during the six months ended June 30, 2023 and 2022, respectively.

The Company granted approximately 50,000 and 104,000 restricted stock units during the three months ended June 30, 2023 and 2022, respectively, and approximately 390,000 and 688,000 restricted stock units during the six months ended June 30, 2023 and 2022, respectively.

There were 0.1 million options exercised during the three and six months ended June 30, 2023. The Company received $0.3 million and $0.9 million in cash from employees and directors exercising options during the three and six months ended June 30, 2023, respectively. The intrinsic value of options exercised was $0.1 million and $0.2 million for the three and six months ended June 30, 2023, respectively. There were zero options exercised during the three and six month periods ended June 30, 2022.

10. Pension and Employee Benefit Plans

The Company sponsors a non-contributory defined benefit pension plan for certain union employees. The plan is funded in accordance with the funding requirements of the Employee Retirement Income Security Act of 1974.

The Company presents the components of net periodic benefit cost (gain) within “Other income (expense), net” on the Condensed Consolidated Statements of Income.

Retirement plan expense is based on valuations performed by plan actuaries as of the beginning of each fiscal year. The components of the pension plan expense consisted of the following:

	Three months ended June 30,		Six months ended June 30,	
(in thousands)	**2023**	**2022**	**2023**	**2022**
Interest cost	$ 318	$ 220	$ 637	$ 439
Expected return on plan assets	(285)	(390)	(571)	(780)
Amortization of net actuarial loss	74	65	148	131
Net periodic benefit cost (gain)	$ 107	$ (105)	$ 214	$ (210)

The Company made no contributions to its defined benefit plan during the six months ended June 30, 2023 and 2022. For the remainder of 2023, the Company does not expect to make any contributions to fund the pension plan. The unfunded liability of the plan of $5.7 million and $5.5 million as of June 30, 2023 and December 31, 2022, respectively, is included in "Other liabilities" on the Condensed Consolidated Balance Sheets.

11. Income Taxes

The Company files income tax returns in various federal, state and local jurisdictions. Tax years from 2018 forward remain open for examination by Federal authorities. Tax years from 2017 forward remain open for all significant state and foreign authorities.

The Company accounts for uncertain tax positions pursuant to ASC Topic 740, "Income Taxes." As of June 30, 2023 and December 31, 2022, the liability for uncertain tax positions totaled $0.1 million, which is included in "Other liabilities" on the Condensed Consolidated Balance Sheets. The Company recognizes accrued interest related to uncertain tax positions and penalties, if any, in income tax expense within the Condensed Consolidated Statements of Income.

Certain of the Company's undistributed earnings of our foreign subsidiaries are not permanently reinvested. Since foreign earnings have already been subject to United States income tax in 2017 as a result of the 2017 Tax Cuts and Jobs Act, the Company intends to repatriate foreign-held cash as needed. The Company records deferred income tax attributable to foreign withholding taxes that would become payable should it decide to repatriate cash held in our foreign operations. As of June 30, 2023 and December 31, 2022, the Company recorded deferred income taxes of approximately $0.8 million and $1.3 million, respectively, on the undistributed earnings of its foreign subsidiaries.

Income tax expense was $1.0 million and $1.9 million for the three months ended June 30, 2023 and 2022, respectively, and $1.0 million and $3.0 million for the six months ended June 30, 2023 and 2022, respectively. The effective income tax rate for the three months ended June 30, 2023 was 19.8% compared with 28.3% for the three months ended June 30, 2022, and the effective income tax rate for the six months ended June 30, 2023 was 13.3% compared with 28.3% for the six months ended June 30, 2022. The effective income tax rates for the three and six months ended June 30, 2023 and 2022 differ from the United States federal statutory rate. The Company's effective rate is affected by certain other permanent differences, including state income taxes, non-deductible incentive stock-based compensation and differences in tax rates among jurisdictions in which it operates.

12. Financial Instruments

The Company's financial instruments consist primarily of investments in cash and cash equivalents, receivables and certain other assets, foreign debt and accounts payable, which approximate fair value at June 30, 2023 and December 31, 2022, due to their short-term nature or variable, market-driven interest rates.

The fair value of the debt issued under the Credit Facility and joint venture term loan was $142.8 million and $112.7 million at June 30, 2023 and December 31, 2022, respectively. The fair value was determined considering market conditions, the Company's credit worthiness and the current terms of our debt, which is considered Level 2 on the fair value hierarchy.

At June 30, 2023 and December 31, 2022, the Company had cash and cash equivalents of $47.6 million and $45.5 million, respectively, of which $35.6 million and $31.7 million, respectively, was held outside of the United States, principally in the Netherlands, United Kingdom, United Arab Emirates and China.

13. Commitments and Contingencies

Asbestos cases

The Company's subsidiary, Met-Pro Technologies LLC (“Met-Pro”), beginning in 2002, has been named in asbestos-related lawsuits filed against a large number of industrial companies including, in particular, those in the pump and fluid handling industries. In management’s opinion, the complaints typically have been vague, general and speculative, alleging that Met-Pro, along with the numerous other defendants, sold unidentified asbestos-containing products and engaged in other related actions which caused injuries (including death) and loss to the plaintiffs. Counsel has advised that more recent cases typically allege more serious claims of mesothelioma. The Company’s insurers have hired attorneys who, together with the Company, are vigorously defending these cases. Many cases have been dismissed after the plaintiff fails to produce evidence of exposure to Met-Pro’s products. In those cases, where evidence has been produced, the Company’s experience has been that the exposure levels are low and the Company’s position has been that its products were not a cause of death, injury or loss. The Company has been dismissed from or settled a large number of these cases. Cumulative settlement payments from 2002 through June 30, 2023 for cases involving asbestos-related claims were $6.2 million which together with all legal fees other than corporate counsel expenses have substantially been paid by the Company’s insurers. The average cost per settled claim, excluding legal fees, was approximately $38,000.

Based upon the most recent information available to the Company regarding such claims, there were a total of 261 cases pending against the Company as of June 30, 2023 with Illinois, New York, Pennsylvania and West Virginia having the largest number of cases, as compared with 247 cases that were pending as of December 31, 2022. During the six months ended June 30, 2023, 71 new cases were filed against the Company, and the Company was dismissed from 46 cases and settled 11 cases. Most of the pending cases have not advanced beyond the early stages of discovery, although a number of cases are on schedules leading to or scheduled for trial. The Company believes that its insurance coverage is adequate for the cases currently pending against the Company and for the foreseeable future, assuming a continuation of the current volume, nature of cases and settlement amounts. However, the Company has no control over the number and nature of cases that are filed against it, nor as to the financial health of its insurers or their position as to coverage. The Company also presently believes that none of the pending cases will have a material adverse impact upon the Company’s results of operations, liquidity or financial condition.

Other

The Company is also a party to routine contract and employment-related litigation matters, warranty claims and routine audits of state and local tax returns arising in the ordinary course of its business.

The final outcome and impact of open matters, and related claims and investigations that may be brought in the future, are subject to many variables, and cannot be predicted. In accordance with ASC 450, “Contingencies,” and related guidance, the Company records accruals for estimated losses relating to claims and lawsuits when available information indicates that a loss is probable and the amount of the loss, or range of loss, can be reasonably estimated. The Company expenses legal costs as they are incurred.

The Company is not aware of any pending claims or assessments, other than as described above, which may have a material adverse impact on its liquidity, financial position, results of operations, or cash flows.

14. Acquisitions and Joint Ventures

Malvar Engineering Limited

On January 10, 2023, the Company acquired 100% of the equity interests of Malvar Engineering Limited, including its subsidiaries Arkanum Management Limited and Wakefield Acoustics Limited (collectively, "Wakefield"), for $4.1 million in cash, which was financed with a draw on the Company’s revolving credit facility, and $0.4 million of deferred cash consideration. As additional consideration, the former owners are entitled to earn-out payments based upon specified financial results through July 31, 2023. Based on projections at the acquisition date, the Company estimated the fair value of the earn-out to be $0.6 million. As of June 30, 2023, the earnout liability recorded in “Accounts payable and accrued expenses” on the Condensed Consolidated Balance Sheets is $0.6 million. Wakefield is a producer of industrial engineered noise control solutions, including custom acoustical gen-set packages, ambient air baffles, acoustical louvres, and skid enclosures, primarily serving server farms for data centers, standby and emergency power generation, oil and gas, petrochemical, commercial construction, infrastructure, and general manufacturing industries. This acquisition advances the Company's position within the industrial silencing and noise attenuation market by adding a range of solutions and access to new geographic markets within the Engineered Systems segment. The following table summarizes the fair values of the assets acquired and liabilities assumed at the date of closing.

(in thousands)		
Current assets	$	3,240
Property and equipment		635
Intangible - finite life		1,778
Goodwill		4,779
Total assets acquired		10,432
Current liabilities assumed		(4,860)
Deferred income tax liability		(444)
Net assets acquired	$	5,128

The Company acquired customer lists and tradename intangible assets valued at $1.5 million and $0.3 million, respectively. These assets were determined to have useful lives of 10 years.

During the three and six months ended June 30, 2023, Wakefield accounted for $3.0 million and $5.5 million in revenue, respectively, and $0.2 million and $0.3 million of net income, respectively, included in the Company's results.

Transcend Solutions

On March 31, 2023, the Company acquired 100% of the equity interests of Transcend Solutions, LLC ("Transcend") for $22.4 million, including $20.0 million in cash, which was financed with a draw on the Company's revolving credit facility, $2.4 million of deferred cash consideration, consisting of $0.4 million of holdback payable within one year and $2.0 million of notes payable due in equal installments over two years. Transcend is a process filtration solution design and manufacturing company with applications in hydrocarbon and chemical processing. This acquisition improves the Company's short-cycle and long-cycle mix and expands the Company's reach into midstream oil and gas, liquified natural gas, hydrocarbon processing, and chemical processing applications within the Engineered Systems segment. The following table summarizes the fair values of the assets acquired and liabilities assumed at the date of closing.

(in thousands)		
Current assets (including cash of $52)	$	2,614
Property and equipment		1,153
Intangible - finite life		8,930
Goodwill		10,671
Other assets		231
Total assets acquired		23,599
Current liabilities assumed		(1,203)
Net assets acquired	$	22,396

The Company acquired technology, customer lists and tradename intangible assets valued at $0.6 million, $7.6 million and $0.7 million, respectively. These assets were determined to have useful lives of 7, 10 and 10 years, respectively.

During the three and six months ended June 30, 2023, Transcend accounted for $2.5 million in revenue and $0.5 million of net income included in the Company's results.

General Rubber LLC

On March 7, 2022, the Company, through the EFM JV, acquired 100% of the equity interests of General Rubber LLC ("GRC") for $19.7 million in cash, which was financed with a combination of a draw on the Company's revolving credit facility and issuance of term debt by the EFM JV. As additional consideration, the former owners of GRC were issued 10% of the equity interest in the EFM JV, resulting in the Company holding 63% of the equity in the joint venture. The fair value ascribed to the equity interest of the former owners of GRC was approximately $4.1 million. As of June 30, 2023, there were $15.5 million in current assets, $27.2 million in long-lived assets, and $31.5 million in total liabilities related to the EFM JV included in the Condensed Consolidated Balance Sheets. For the three months and six months ended June 30, 2023, the EFM JV accounted for $9.9 million and $19.3 million, respectively, in revenue included in the Company's results.

GRC engineers and manufactures non-metallic expansion joints and flow control products including rubber expansion joints, ducting expansion joints, and industrial pinch and duck bill valves, serving the industrial water and wastewater markets. The acquisition diversifies and expands the EFM JV product offerings within the Engineered Systems segment. The following table summarizes the fair values of the assets acquired and liabilities assumed at the date of closing.

(in thousands)		
Current assets (including cash of $137)	$	4,963
Property and equipment		459
Goodwill		11,120
Intangible - finite life		8,380
Total assets acquired		24,922
Current liabilities assumed		(714)
Deferred income tax liability		(388)
Net assets acquired	$	23,820

The Company acquired customer lists and tradename intangible assets valued at $7.7 million and $0.7 million, respectively. These assets were determined to have useful lives of 10 years.

During the three and six months ended June 30, 2022, GRC accounted for $3.8 million and $4.5 million in revenue, respectively, and $0.5 million and $0.8 million, respectively, of net income included in the Company’s results.

Compass Water Solutions, Inc.

On May 3, 2022, the Company acquired 100% of the equity interests of Compass Water Solutions, Inc. ("Compass") for $9.0 million in cash, which was financed with a draw on the Company’s revolving credit facility, and $2.0 million in notes payable to the former owners over two years. As additional consideration, the former owners are entitled to earn-out payments based upon a multiple of specified financial results through April 30, 2023. Based on projections at the acquisition date, the Company estimated the fair value of the earn-out to be $1.4 million. As of June 30, 2023, the earnout liability recorded in “Accounts payable and accrued expenses” on the Condensed Consolidated Balance Sheets is $1.4 million.

Compass is a leading global supplier of membrane-based industrial water and wastewater treatment systems that help customers achieve regulatory compliance of water discharge at the lowest lifecycle cost. The acquisition diversifies and expands the Company's industrial water product offerings within the Engineered Systems segment. The following table summarizes the fair values of the assets acquired and liabilities assumed at the date of closing.

(in thousands)		
Current assets (including cash of $334)	$	4,796
Property and equipment		101
Goodwill		4,848
Intangible - finite life		4,900
Total assets acquired		14,645
Current liabilities assumed		(623)
Deferred income tax liability		(1,627)
Net assets acquired	$	12,395

The Company acquired customer lists and tradename intangible assets valued at $4.4 million and $0.5 million, respectively. These assets were determined to have useful lives of 10 years.

During the three and six months ended June 30, 2022, Compass accounted for $0.8 million in revenue and $0.1 million of net loss included in the Company’s results.

Western Air Ducts Limited

On June 22, 2022, the Company acquired 100% of the equity interests of Western Air Ducts Limited ("Western Air Ducts") for $10.7 million in cash, which was financed with a draw on the Company’s revolving credit facility, and deferred cash consideration of $0.8 million paid one year from the date of closing.

Western Air Ducts is a leading European supplier of dust and fume extraction solutions, providing consultation, design, manufacturing, installation, and service. The acquisition diversifies and expands the Company's industrial air product offerings within the Industrial Process Solutions segment. The following table summarizes the fair values of the assets acquired and liabilities assumed at the date of closing.

(in thousands)		
Current assets (including cash of $1,557)	$	2,711
Property and equipment		188
Goodwill		7,344
Intangible - finite life		3,158
Total assets acquired		13,401
Current liabilities assumed		(1,127)
Deferred income tax liability		(824)
Net assets acquired	$	11,450

The Company acquired customer lists and tradename intangible assets valued at $2.8 million and $0.4 million, respectively. These assets were determined to have useful lives of 10 years.

DS21 Co., Ltd.

On September 19, 2022, the Company acquired 100% of the equity interests of DS21 Co., Ltd. ("DS21") for $9.2 million, including $8.9 million in cash, which was financed with a draw on the Company’s revolving credit facility, and deferred cash consideration of $0.3 million payable in one year.

DS21 is a South Korean-based design and manufacturing firm specializing in innovative water and wastewater treatment solutions. The addition of DS21 advances the Company's leadership position in niche oily water and produced water treatment, demineralization water treatment and ultra-pure water supply applications within the Company's Engineered Systems segment. The following table summarizes the fair values of the assets acquired and liabilities assumed at the date of closing.

(in thousands)		
Current assets (including cash of $1,453)	$	5,099
Property and equipment		4,112
Intangible - finite life		422
Deferred income taxes		557
Other assets		169
Total assets acquired		10,359
Current liabilities assumed		(1,008)
Other liabilities		(113)
Net assets acquired	$	9,238

The Company acquired customer lists and tradename intangible assets valued at $0.1 million and $0.3 million, respectively. These assets were determined to have useful lives of 10 years.

The Company has finalized the valuation of assets acquired and liabilities assumed related to the acquisitions of GRC, Compass, and Western Air Ducts. The approximate fair values of the assets acquired and liabilities assumed related to the remaining acquisitions are based on preliminary estimates and assumptions. These preliminary estimates and assumptions could change significantly during the purchase price measurement period as the Company finalizes the valuation of assets acquired and liabilities assumed. These changes could result in material variances between the Company's future financial results, including variances in the estimated purchase price, fair values recorded and expenses associated with these items.

Goodwill recognized represents value the Company expects to be created by combining the various operations of the acquired businesses with the Company’s operations, including the expansion into markets within existing business segments, access to new customers and potential cost savings and synergies. Goodwill related to this acquisition is not deductible for tax purposes.

Acquisition and integration expenses on the Condensed Consolidated Statements of Income are related to acquisition activities, which include retention, legal, accounting, banking, and other expenses.

The following unaudited pro forma financial information represents the Company's results of operations as if these acquisitions had occurred at the beginning of the fiscal year prior to the acquisition:

	Three months ended June 30,		Six months ended June 30,	
(in thousands, except per share data)	2023	2022	2023	2022
Net sales	$ 129,181	113,063	$ 245,297	$ 216,077
Net income attributable to CECO Environmental Corp.	3,724	4,271	5,462	6,853
Earnings per share:				
Basic	$ 0.11	$ 0.12	$ 0.16	$ 0.20
Diluted	$ 0.11	$ 0.12	$ 0.16	$ 0.20

The pro forma results have been prepared for informational purposes only and include adjustments to amortize acquired intangible assets with finite life, reflect additional interest expense on debt used to fund the acquisition, and to record the income tax consequences of the pro forma adjustments. These pro forma results do not purport to be indicative of the results of operations that would have occurred had the purchase been made as of the beginning of the periods presented or of the results of operations that may occur in the future.

15. Business Segment Information

The Company's operations are organized and reviewed by management along with its solutions or end markets that the segment serves and presented in two reportable segments. The results of the segments are reviewed through the "Income from operations" line on the Condensed Consolidated Statements of Income.

The Company's reportable segments are organized as groups of similar products and services, as described as follows:

Engineered Systems segment: The Engineered Systems segment serves the power generation, hydrocarbon processing, water/wastewater treatment, oily water separation and treatment, marine and naval vessels, and midstream oil & gas sectors. The Company addresses the global demand for environmental and equipment protection solutions with its highly engineered platforms including emissions management, fluid bed cyclones, thermal acoustics, separation & filtration, and dampers & expansion joints.

Industrial Process Solutions segment: The Industrial Process Solutions segment serves the broad industrial sector with solutions for air pollution and contamination control, fluid handling, and process filtration in applications such as aluminum beverage can production, automobile production, food and beverage processing, semiconductor fabrication, electronics production, steel and aluminum mill processing, wood manufacturing, desalination, and aquaculture markets. For Industrial Air applications, the Company assists companies in maintaining clean and safe operations for employees, reducing energy consumption, minimizing waste for customers, and meeting regulatory standards for toxic emissions, fumes, volatile organic compounds and odor elimination through its platforms including duct fabrication & installation, industrial air, and fluid handling.

The financial segment information is as follows:

	Three months ended June 30,		Six months ended June 30,	
(in thousands)	2023	2022	2023	2022
Net sales (less intra-, inter-segment sales)				
Engineered Systems segment	$ 87,522	$ 67,333	$ 161,977	$ 124,308
Industrial Process Solutions segment	41,659	38,042	79,767	73,503
Total net sales	$ 129,181	$ 105,375	$ 241,744	$ 197,811

	Three months ended June 30,		Six months ended June 30,	
(in thousands)	2023	2022	2023	2022
Income from operations				
Engineered Systems segment	$ 14,089	$ 9,006	$ 23,894	$ 15,476
Industrial Process Solutions segment	4,586	5,482	10,131	9,621
Corporate and Other(1)	(10,072)	(8,742)	(19,961)	(14,147)
Total income from operations	$ 8,603	$ 5,746	$ 14,064	$ 10,950

(1) Includes corporate compensation, professional services, information technology, and other general and administrative corporate expenses.

(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
Property and equipment additions				
Engineered Systems segment	$ 444	$ 27	$ 688	$ 32
Industrial Process Solutions segment	312	340	1,711	412
Corporate and Other	1,406	400	1,520	988
Total property and equipment additions	$ 2,162	$ 767	$ 3,919	$ 1,432

(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
Depreciation and amortization				
Engineered Systems segment	$ 1,274	$ 960	$ 2,486	$ 1,855
Industrial Process Solutions segment	949	1,009	2,107	2,059
Corporate and Other	542	410	1,057	754
Total depreciation and amortization	$ 2,765	$ 2,379	$ 5,650	$ 4,668

(in thousands)	June 30, 2023	December 31, 2022
Identifiable assets		
Engineered Systems segment	$ 406,289	$ 332,820
Industrial Process Solutions segment	154,610	150,458
Corporate and Other(2)	21,719	21,443
Total identifiable assets	$ 582,618	$ 504,721

(2) Corporate and Other assets consist primarily of cash and income tax related assets.

(in thousands)	June 30, 2023	December 31, 2022
Goodwill		
Engineered Systems segment	$ 130,572	$ 114,746
Industrial Process Solutions segment	69,164	68,451
Total goodwill	$ 199,736	$ 183,197

Intra-segment and Inter-segment Revenues

The Company has multiple divisions that sell to each other within segments (intra-segment sales) and between segments (inter-segment sales), as follows:

	Three months ended June 30, 2023				
			Less Inter-Segment Sales		
(in thousands)	Total Sales	Intra-Segment Sales	Industrial Process Solutions	Engineered Systems	Net Sales to Outside Customers
Net sales					
Engineered Systems segment	$ 95,880	$ (7,995)	$ (363)	$ —	$ 87,522
Industrial Process Solutions segment	44,641	(2,806)	-	(176)	41,659
Total net sales	$ 140,521	$ (10,801)	$ (363)	$ (176)	$ 129,181

	Three months ended June 30, 2022				
			Less Inter-Segment Sales		
(in thousands)	Total Sales	Intra-Segment Sales	Industrial Process Solutions	Engineered Systems	Net Sales to Outside Customers
Net sales					
Engineered Systems segment	$ 70,754	$ (3,231)	$ (190)	$ —	$ 67,333
Industrial Process Solutions segment	39,901	(1,717)	—	(142)	38,042
Total net sales	$ 110,655	$ (4,948)	$ (190)	$ (142)	$ 105,375

	Six months ended June 30, 2023				
			Less Inter-Segment Sales		
(in thousands)	Total Sales	Intra-Segment Sales	Industrial Process Solutions	Engineered Systems	Net Sales to Outside Customers
Net sales					
Engineered Systems segment	$ 171,970	$ (9,533)	$ (460)	$ —	$ 161,977
Industrial Process Solutions segment	83,682	(3,641)	—	(274)	79,767
Total net sales	$ 255,652	$ (13,174)	$ (460)	$ (274)	$ 241,744

	Six months ended June 30, 2022				
			Less Inter-Segment Sales		
(in thousands)	Total Sales	Intra-Segment Sales	Industrial Process Solutions	Engineered Systems	Net Sales to Outside Customers
Net sales					
Engineered Systems segment	$ 132,354	$ (7,789)	$ (257)	$ —	$ 124,308
Industrial Process Solutions segment	77,043	(3,342)	—	(198)	73,503
Total net sales	$ 209,397	$ (11,131)	$ (257)	$ (198)	$ 197,811

ITEM 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The Company's Condensed Consolidated Statements of Income for the three and six months ended June 30, 2023 and 2022 reflect the consolidated operations of the Company and its subsidiaries.

CECO Environmental Corp. ("CECO," "we," "us," or the "Company") is a leading environmentally focused, diversified industrial company, serving the broad landscape of industrial air, industrial water and energy transition markets globally providing innovative technology and application expertise. CECO helps companies grow their business with safe, clean, and more efficient solutions that help protect people, the environment and industrial equipment. CECO solutions improve air and water quality, optimize emissions management, and increase the energy and process efficiency for highly engineered applications in power generation, midstream and downstream hydrocarbon processing and transport, chemical processing, electric vehicle production, polysilicon fabrication, semiconductor and electronics production, battery production and recycling, specialty metals, aluminum and steel production, beverage can manufacturing, and industrial and produced water and wastewater treatment, and a wide range of other industrial end markets.

Market Pressures

The senior management team monitors and manages the Company's ability to operate effectively as the result of market pressures. In particular, we are currently experiencing challenges in obtaining certain raw materials and labor on a timely basis at a reasonable cost. We expect these supply chain challenges and cost impacts to continue for the foreseeable future. Although we have secured additional raw materials from existing and alternate suppliers and have taken other mitigating actions to mitigate supply disruptions, we cannot guarantee that we can continue to do so in the future. In this event, our business, results and financial condition could be adversely affected.

Note Regarding Use of Non-GAAP Financial Measures

The Company's unaudited condensed consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). These GAAP financial statements include certain charges the Company believes are not indicative of its core ongoing operational performance.

As a result, the Company provides financial information in this Management's Discussion and Analysis that was not prepared in accordance with GAAP and should not be considered as an alternative to the information prepared in accordance with GAAP. The Company provides this non-GAAP financial information because the Company's management utilizes it to evaluate its ongoing financial performance and the Company believes it provides greater transparency to investors as supplemental information to its GAAP results.

The Company has provided the non-GAAP financial measures of non-GAAP operating income and non-GAAP operating margin as a result of items that the Company believes are not indicative of its ongoing operations. These include transactions associated with the Company's acquisitions and the items described below in "Consolidated Results." The Company believes that evaluation of its financial performance compared with prior and future periods can be enhanced by a presentation of results that exclude the impact of these items. The Company has incurred substantial expense and income associated with acquisitions. While the Company cannot predict the exact timing or amounts of such charges, it does expect to treat the financial impact of these transactions as special items in its future presentation of non-GAAP results.

Results of Operations

Consolidated Results

Our Condensed Consolidated Statements of Income for the three and six months ended June 30, 2023 and 2022 are as follows:

	Three months ended June 30,		Six months ended June 30,	
(in millions, except ratios)	**2023**	**2022**	**2023**	**2022**
Net sales	$ 129.2	$ 105.4	$ 241.7	$ 197.8
Cost of sales	89.4	73.7	167.0	139.7
Gross profit	$ 39.8	$ 31.7	$ 74.7	$ 58.1
Percent of sales	*30.8%*	*30.1%*	*30.9%*	*29.4%*
Selling and administrative expenses	28.4	23.0	55.6	41.6
Percent of sales	*22.0%*	*21.8%*	*23.0%*	*21.0%*
Amortization and earnout expenses	2.3	1.5	4.0	2.9
Acquisition and integration expenses	0.3	1.5	0.8	2.5
Executive transition expenses	0.2	—	0.2	—
Restructuring expenses	—	—	—	0.1
Operating income	$ 8.6	$ 5.7	$ 14.1	$ 11.0
Operating margin	*6.7%*	*5.4%*	*5.8%*	*5.6%*

To compare operating performance between the three and six months ended June 30, 2023 and 2022, the Company has adjusted GAAP operating income to exclude (1) amortization of intangible assets, earnout and retention expenses, (2) acquisition and integration expenses, which include legal, accounting, and other expenses, (3) executive transition expenses, including fees and expenses incurred in the search, for and hiring, of new executives and (4) restructuring expenses primarily relating to severance, facility exits, and associated legal expenses.

The following table presents the reconciliation of GAAP operating income and GAAP operating margin to non-GAAP operating income and non-GAAP operating margin:

	Three months ended June 30,		Six months ended June 30,	
(in millions, except ratios)	**2023**	**2022**	**2023**	**2022**
Operating income as reported in accordance with GAAP	$ 8.6	$ 5.7	$ 14.1	$ 11.0
Operating margin in accordance with GAAP	*6.7%*	*5.4%*	*5.8%*	*5.6%*
Amortization and earnout expenses	2.3	1.5	4.0	2.9
Acquisition and integration expenses	0.3	1.5	0.8	2.5
Executive transition expenses	0.2	—	0.2	—
Restructuring expenses	—	—	—	0.1
Non-GAAP operating income	$ 11.4	$ 8.7	$ 19.1	$ 16.5
Non-GAAP operating margin	*8.8%*	*8.3%*	*7.9%*	*8.3%*

Orders booked increased $49.4 million, or 43.5%, to $162.9 million during the three months ended June 30, 2023 compared with $113.5 million in the three months ended June 30, 2022. The increase is led by an increase of $49.4 million in our emissions management technologies, partially offset by a decrease of $12.4 million in separation, filtration, and industrial water technologies. Of the $162.9 million in orders booked during the three months ended June 30, 2023, $15.1 million is attributable to acquisitions that have occurred during the preceding twelve month period.

Orders booked increased $34.6 million, or 12.6%, to $309.0 million during the six months ended June 30, 2023 compared with $274.4 million in the six months ended June 30, 2022. The increase is led by increases of $17.7 million in our emissions management technologies and $15.4 million in our engineered cyclone systems. Of the $309.0 million in orders booked during the six months ended June 30, 2023, $39.3 million is attributable to acquisitions that have occurred during the preceding twelve month period.

Net sales for the three months ended June 30, 2023 increased $23.8 million, or 22.6%, to $129.2 million compared with $105.4 million for the three months ended June 30, 2022. The increase is broad-based, led by increases of $15.2 million in separation, filtration, and industrial water technologies and $5.4 million in our emissions management technologies. Approximately 95%, or $121.3 million, of net sales for the three months ended June 30, 2023 is attributable to organic revenue.

Net sales for the six months ended June 30, 2023 increased $43.9 million, or 22.2%, to $241.7 million compared with $197.8 million for the six months ended June 30, 2022. The increase is broad-based, led by increases of $27.8 million in separation, filtration, and industrial water technologies, $9.4 million in our thermal acoustics technologies, and $5.5 million in products serving the industrial air end markets. Approximately 90%, or $221.2 million, of net sales for the six months ended June 30, 2023 is attributable to organic revenue.

Gross profit increased $8.1 million, or 25.6%, to $39.8 million in the three months ended June 30, 2023 compared with $31.7 million in the three months ended June 30, 2022. The increase in gross profit is primarily attributable to the increase in organic sales as described above, operating leverage and acquisitions of businesses with favorable margins. Gross profit as a percentage of sales increased to 30.8% in the three months ended June 30, 2023 compared with 30.1% in the three months ended June 30, 2022.

Gross profit increased $16.6 million, or 28.6%, to $74.7 million in the six months ended June 30, 2023 compared with $58.1 million in the six months ended June 30, 2022. The increase in gross profit is primarily attributable to the increase in sales volume as described above, higher project margin mix and acquisitions of businesses with favorable margins. Gross profit as a percentage of sales increased to 30.9% in the six months ended June 30, 2023 compared with 29.4% in the six months ended June 30, 2022.

Selling and administrative expenses were $28.4 million for the three months ended June 30, 2023 compared with $23.0 million for the three months ended June 30, 2022. The increase is primarily attributable to acquisitions during the prior and current year, and increased headcount to support our growth and efforts to expand our global footprint.

Selling and administrative expenses were $55.6 million for the six months ended June 30, 2023 compared with $41.6 million for the six months ended June 30, 2022. The increase is primarily attributable to acquisitions during the prior and current year, a $2.5 million favorable insurance settlement in the prior year, and increased headcount to support our growth and efforts to expand our global footprint.

Amortization and earnout expense was $2.3 million for the three months ended June 30, 2023 compared with $1.5 million for the three months ended June 30, 2022. The increase in expense is attributable to an increase of $0.5 million in earnout expense and an increase of $0.3 million in definite lived asset amortization due to increased intangible assets attributable to current and prior year acquisitions.

Amortization and earnout expense was $4.0 million for the six months ended June 30, 2023 compared with $2.9 million for the six months ended June 30, 2022. The increase in expense is attributable to an increase of $0.6 million in earnout expense and an increase of $0.5 million in definite lived asset amortization due to increased intangible assets attributable to current and prior year acquisitions.

Operating income increased $2.9 million to $8.6 million for the three months ended June 30, 2023 compared with operating income of $5.7 million for the three months ended June 30, 2022. The increase in operating income is primarily attributable to increases in net sales.

Operating income increased $3.1 million to $14.1 million for the six months ended June 30, 2023 compared with operating income of $11.0 million for the six months ended June 30, 2022. The increase in operating income is primarily attributable to increases in net sales.

Non-GAAP operating income was $11.4 million for the three months ended June 30, 2023 compared with $8.7 million for the three months ended June 30, 2022. Non-GAAP operating income as a percentage of sales increased to 8.8% for the three months ended June 30, 2023 from 8.3% for the three months ended June 30, 2022.

Non-GAAP operating income was $19.1 million for the six months ended June 30, 2023 compared with $16.5 million for the six months ended June 30, 2022. Non-GAAP operating income as a percentage of sales was 7.9% for the three months ended June 30, 2023 compared to 8.3% for the six months ended June 30, 2022.

Interest expense increased to $3.8 million in the three months ended June 30, 2023 compared with interest expense of $1.1 million for the three months ended June 30, 2022. The increase in interest expense is primarily due to increased debt balances and rising interest rates.

Interest expense increased to $6.2 million in the six months ended June 30, 2023 compared with interest expense of $1.9 million for the six months ended June 30, 2022. The increase in interest expense is primarily due to increased debt balances and rising interest rates.

Income tax expense was $1.0 million for the three months ended June 30, 2023 compared with income tax expense of $1.9 million for the three months ended June 30, 2022. Income tax expense was $1.0 million for the six months ended June 30, 2023 compared with income tax expense of $3.0 million for the six months ended June 30, 2022. The effective income tax rate for the three months ended June 30, 2023 was 19.8% compared with 28.3% for the three months ended June 30, 2022. The effective income tax rate for the six months ended June 30, 2023 was 13.3% compared with 28.3% for the six months ended June 30, 2022. The effective income tax rates for the three and six months ended June 30, 2023 differ from the United States federal statutory rate. Our effective tax rate is affected by certain other permanent differences, including state income taxes, non-deductible incentive stock-based compensation, and differences in tax rates among the jurisdictions in which we operate.

Business Segments

The Company's operations are organized and reviewed by management along its product lines or end market that the segment serves and are presented in two reportable segments. The results of the segments are reviewed through "Income from operations" on the unaudited Condensed Consolidated Statements of Income.

	Three months ended June 30,		Six months ended June 30,	
(in thousands)	**2023**	**2022**	**2023**	**2022**
Net Sales (less intra- and inter-segment sales)				
Engineered Systems segment	$ 87,522	$ 67,333	$ 161,977	$ 124,308
Industrial Process Solutions segment	41,659	38,042	79,767	73,503
Total net sales	$ 129,181	$ 105,375	$ 241,744	$ 197,811

	Three months ended June 30,		Six months ended June 30,	
(in thousands)	**2023**	**2022**	**2023**	**2022**
Income from Operations				
Engineered Systems segment	$ 14,089	$ 9,006	$ 23,894	$ 15,476
Industrial Process Solutions segment	4,586	5,482	10,131	9,621
Corporate and Other[(1)]	(10,072)	(8,742)	(19,961)	(14,147)
Total income from operations	$ 8,603	$ 5,746	$ 14,064	$ 10,950

(1) Includes corporate compensation, professional services, information technology and other general and administrative corporate expenses.

Engineered Systems Segment

Our Engineered Systems segment net sales increased $20.2 million to $87.5 million for the three months ended June 30, 2023 compared with $67.3 million for the three months ended June 30, 2022. The increase is led by increases of $15.2 million in separation, filtration, and industrial water technologies and $5.4 million in our emissions management technologies. Approximately 90%, or $80.5 million, of net sales for the three months ended June 30, 2023 is attributable to organic revenue.

Our Engineered Systems segment net sales increased $37.7 million to $162.0 million for the six months ended June 30, 2023 compared with $124.3 million for the six months ended June 30, 2022. The increase is led by increases of $27.8 million in separation, filtration, and industrial water technologies and $9.4 million in our thermal acoustics technologies. Approximately 90%, or $143.4 million, of net sales for the six months ended June 30, 2023 is attributable to organic revenue.

Operating income for the Engineered Systems segment increased $5.1 million to $14.1 million for the three months ended June 30, 2023 compared with $9.0 million for the three months ended June 30, 2022. The increase is primarily attributable to increased sales, partially offset by an increase in direct costs.

Operating income for the Engineered Systems segment increased $8.4 million to $23.9 million for the six months ended June 30, 2023 compared with $15.5 million for the six months ended June 30, 2022. The increase is primarily attributable to increased sales, partially offset by an increase in direct costs.

Industrial Process Solutions Segment

Our Industrial Process Solutions segment net sales increased $3.7 million to $41.7 million for the three months ended June 30, 2023 compared with $38.0 million for the three months ended June 30, 2022. The increase is primarily attributable to increases across all products serving industrial air end markets. Approximately 98%, or $40.7 million, of net sales for the three months ended June 30, 2023 is attributable to organic revenue.

Our Industrial Process Solutions segment net sales increased $6.3 million to $79.8 million for the six months ended June 30, 2023 compared with $73.5 million for the six months ended June 30, 2022. The increase is primarily attributable to increases across all products serving industrial air end markets. Approximately 98%, or $77.8 million, of net sales for the six months ended June 30, 2023 is attributable to organic revenue.

Operating income for the Industrial Process Solutions segment decreased $0.9 million to $4.6 million for the three months ended June 30, 2023 compared with $5.5 million for the three months ended June 30, 2022. The decrease is primarily attributable to an increase in costs related to materials and labor, partially offset by increased sales.

Operating income for the Industrial Process Solutions segment increased $0.5 million to $10.1 million for the six months ended June 30, 2023 compared with $9.6 million for the six months ended June 30, 2022. The increase is primarily attributable to increased sales, offset by an increase costs related to materials and labor.

Corporate and Other Segment

Operating expense for the Corporate and Other segment increased $1.4 million to $10.1 million for the three months ended June 30, 2023 compared with $8.7 million for the three months ended June 30, 2022. The increase is primarily attributable to investments made to support growth, and inflationary increases for wages and services.

Operating expense for the Corporate and Other segment increased $5.9 million to $20.0 million for the six months ended June 30, 2023 compared with $14.1 million for the six months ended June 30, 2022. The increase is primarily attributable to investments made to support growth, inflationary increases for wages and services, and a favorable insurance settlement of $2.5 million in the prior year period.

Backlog

Backlog (i.e., unfulfilled or remaining performance obligations) represents the sales we expect to recognize for our products and services for which control has not yet transferred to the customer. Backlog increased to $391.0 million as of June 30, 2023 from $311.7 million as of December 31, 2022, with $49.9 million, or 63%, of the increase due to organic growth. Our customers may have the right to cancel a given order. Historically, cancellations have not been common. Backlog is adjusted on a quarterly basis for adjustments in foreign currency exchange rates. Substantially all backlog is expected to be delivered within 12 to 18 months. Backlog is not defined by GAAP and our methodology for calculating backlog may not be consistent with methodologies used by other companies.

New Accounting Pronouncements

For information regarding recent accounting pronouncements, see Note 2 to the unaudited condensed consolidated financial statements within Item 1 of this Quarterly Report on Form 10-Q.

Liquidity and Capital Resources

When we undertake large jobs, our working capital objective is to make these projects self-funding. We work to achieve this by obtaining initial down payments, progress billing contracts, when possible, utilizing extended payment terms from material suppliers, and paying sub-contractors after payment from our customers, which is an industry practice. Our investment in net working capital is funded by cash flow from operations and by our revolving line of credit under our Credit Facility (as defined below).

At June 30, 2023, the Company had working capital of $102.8 million, compared with $94.0 million at December 31, 2022. The ratio of current assets to current liabilities was 1.55 to 1.00 on June 30, 2023, as compared with a ratio of 1.64 to 1.00 on December 31, 2022.

At June 30, 2023 and December 31, 2022, cash and cash equivalents totaled $47.6 million and $45.5 million, respectively. As of June 30, 2023 and December 31, 2022, $35.6 million and $31.7 million, respectively, of our cash and cash equivalents were held by certain non-United States subsidiaries, as well as being denominated in foreign currencies.

Debt consisted of the following:

(in thousands)	June 30, 2023	December 31, 2022
Outstanding borrowings under the Credit Facility (as defined below)		
Term loan payable in quarterly principal installments of $550 through September 2023, $825 through September 2025 and $1,100 thereafter with balance due upon maturity in December 2026.		
Term loan	$ 40,207	$ 41,309
Revolving credit facility	93,200	61,300
Total outstanding borrowings under the Credit Facility	133,407	102,609
Outstanding borrowings under the joint venture term debt	9,406	10,083
Unamortized debt discount	(1,178)	(1,488)
Total outstanding borrowings	141,635	111,204
Less: current portion	(4,313)	(3,579)
Total debt, less current portion	$ 137,322	$ 107,625

Credit Facility

The Company's outstanding borrowings in the United States consist of a senior secured term loan and a senior secured revolver loan with sub-facilities for letters of credit, swing-line loans and multi-currency loans (collectively, the "Credit Facility"). As of June 30, 2023 and December 31, 2022, the Company was in compliance with all related financial and other restrictive covenants under the Credit Facility.

See Note 7 to the unaudited condensed consolidated financial statements within Item 1 of this Quarterly Report on Form 10-Q for further information on the Company's debt facilities.

Total unused credit availability under our existing Credit Facility is as follows:

(in millions)	June 30, 2023	December 31, 2022
Credit Facility, revolving loans	$ 140.0	$ 140.0
Draw down	(93.2)	(61.3)
Letters of credit open	20.4	(18.9)
Total unused credit availability	$ 67.2	$ 59.8
Amount available based on borrowing limitations	$ 26.4	$ 59.8

Overview of Cash Flows and Liquidity

	Six months ended June 30,	
(in thousands)	2023	2022
Net cash (used in) provided by operating activities	$ (611)	$ 18,691
Net cash used in investing activities	(28,061)	(38,797)
Net cash provided by financing activities	29,498	26,655
Effect of exchange rate changes on cash and cash equivalents	1,141	(3,091)
Net decrease in cash	$ 1,967	$ 3,458

Operating Activities

For the six months ended June 30, 2023, $0.6 million of cash was used in operating activities compared with $18.7 million provided by operations in the prior year period, representing a $19.3 million additional use of cash. Cash flow from operating activities in the first six months of 2023 had an unfavorable impact year-over-year primarily due to timing of receipt of outstanding receivables and payments to suppliers, as well as the decrease in net income compared to the prior year period.

Investing Activities

For the six months ended June 30, 2023, net cash used in investing activities was $28.1 million compared with $38.8 million used in investing activities in the prior year period. For the six months ended June 30, 2023, the $28.1 million cash used in investing activities was the result of $24.2 million cash used for acquisitions as described in Note 14 to the unaudited condensed consolidated financial statements, and $3.9 million for the acquisition of property and equipment. In the prior year period, the $38.8 million cash used in investing activities was the result of $37.4 million used for acquisitions as described in Note 14 and $1.4 million for the acquisition of property and equipment.

Financing Activities

For the six months ended June 30, 2023, $29.5 million was provided by financing activities compared with $26.7 million provided by financing activities in the prior year period, for an increase of $2.8 million. For the six months ended June 30, 2023, the Company used $31.9 million for net borrowings on the Company's revolving credit lines, primarily used to finance current year acquisitions, $1.7 million in repayment on long-term debt, $0.9 million on deferred payments for acquisitions, and $0.6 million on distributions to the noncontrolling interest. The Company also received $1.2 million of proceeds from the exercise of stock options and the employee stock purchase plan. In the prior year period, the Company used $22.7 million for net borrowings on the Company's revolving credit lines and $9.5 million for net borrowings on long-term debt, primarily used to finance acquisitions, as well as $4.3 million on common stock repurchases and $0.9 million on distributions to the noncontrolling interest.

Critical Accounting Policies and Estimates

Management's discussion and analysis of the Company's financial condition and results of operations are based upon the Company's condensed consolidated financial statements. The preparation of these financial statements requires management to make estimates and assumptions about future events. These estimates and the underlying assumptions affect the amounts of assets and liabilities reported, disclosures about contingent assets and liabilities and reported amounts of revenues and expenses. Such estimates include revenue recognition, the valuation of trade receivables, inventories, goodwill, intangible assets, other long-lived assets, legal contingencies, guarantee obligations and assumptions used in the calculation of income taxes, assumptions used in business combination accounting and related balances, and pension and post-retirement benefits, among others. These estimates and assumptions are based on management's best estimates and judgment. Management evaluates its estimates and assumptions on an ongoing basis using historical experience and other factors. Management monitors economic conditions and other factors and will adjust such estimates and assumptions when facts and circumstances dictate. As future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates.

Management believes there have been no changes during the six months ended June 30, 2023 to the items that the Company disclosed as its critical accounting policies and estimates in Management's Discussion and Analysis of Financial Condition and Results of Operations in the Company's Annual Report on Form 10-K for the year ended December 31, 2022.

Forward-Looking Statements

This Quarterly Report on Form 10-Q includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, both as amended, which are intended to be covered by the safe harbor for "forward-looking statements" provided by the Private Securities Litigation Reform Act of 1995. Any statements contained in this Quarterly Report on Form 10-Q, other than statements of historical fact, including statements about management's beliefs and expectations, are forward-looking statements and should be evaluated as such. These statements are made on the basis of management's views and assumptions regarding future events and business performance. We use words such as "believe," "expect," "anticipate," "intends," "estimate," "forecast," "project," "will," "plan," "should" and similar expressions to identify forward-looking statements. Forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from any future results, performance or achievements expressed or implied by such statements. Potential risks and uncertainties, among others, that could cause actual results to differ materially are discussed under "Part I – Item 1A. Risk Factors" of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022, and include, but are not limited to:

- the sensitivity of our business to economic and financial market conditions generally and economic conditions in CECO's service areas;
- dependence on fixed price contracts and the risks associated therewith, including actual costs exceeding estimates and method of accounting for revenue;
- the effect of growth on CECO's infrastructure, resources and existing sales;
- the ability to expand operations in both new and existing markets;
- the potential for contract delay or cancellation as a result of on-going or worsening supply chain challenges;
- liabilities arising from faulty services or products that could result in significant professional or product liability, warranty or other claims;

- changes in or developments with respect to any litigation or investigation;
- failure to meet timely completion or performance standards that could result in higher cost and reduced profits or, in some cases, losses on projects;
- the potential for fluctuations in prices for manufactured components and raw materials, including as a result of tariffs and surcharges;
- the substantial amount of debt incurred in connection with our strategic transactions and our ability to repay or refinance it or incur additional debt in the future;
- the impact of federal, state or local government regulations;
- the impact of adverse developments affecting the banking and financial services industries on our ability to access our funds and deposits and our ability to raise or access capital in the future;
- our ability to repurchase shares of our common stock and the amounts and timing of repurchases, if any;
- economic and political conditions generally;
- our ability to successfully integrate acquired businesses and realize the synergies from strategic transactions;
- unpredictability and severity of catastrophic events, including cybersecurity threats, acts of terrorism or outbreak of war or hostilities or public health crises, as well as management's response to any of the aforementioned factors; and
- our ability to remediate our material weakness, or any other material weakness that we may identify in the future that could result in material misstatements in our financial statements.

Many of these risks are beyond management's ability to control or predict. Should one or more of these risks or uncertainties materialize, or should any related assumptions prove incorrect, actual results may vary in material aspects from those currently anticipated. Investors are cautioned not to place undue reliance on such forward-looking statements as they speak only to our views as of the date the statement is made. Furthermore, the forward-looking statements speak only as of the date they are made. Except as required under the federal securities laws or the rules and regulations of the Securities and Exchange Commission (the "SEC"), we undertake no obligation to update or review any forward-looking statements, whether as a result of new information, future events or otherwise.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to certain market risks, primarily changes in interest rates. Market risk is the potential loss arising from adverse changes in market rates and prices, such as foreign currency exchange and interest rates. For the Company, these exposures are primarily related to changes in interest rates. We do not currently hold any derivatives or other financial instruments purely for trading or speculative purposes.

The carrying value of the Company's total long-term debt and current maturities of long-term debt at June 30, 2023 was $142.8 million. Market risk was estimated as the potential decrease (increase) in future earnings and cash flows resulting from a hypothetical 10% increase (decrease) in the Company's estimated weighted average borrowing rate at June 30, 2023. Most of the interest on the Company's debt is indexed to SOFR market rates. The estimated annual impact of a hypothetical 10% change in the estimated weighted average borrowing rate at June 30, 2023 is $1.2 million.

The Company has wholly-owned subsidiaries in several countries, including in the Netherlands, Canada, the People's Republic of China, Mexico, United Kingdom, Singapore, India, United Arab Emirates and South Korea. In the past, we have not hedged our foreign currency exposure, and fluctuations in exchange rates have not materially affected our operating results. Future changes in exchange rates may positively or negatively impact our revenues, operating expenses and earnings. Transaction gains (losses) included in "Other income (expense), net" line of the Condensed Consolidated Statements of Income were $0.3 million and $(1.6) million for the three months ended June 30, 2023 and 2022, respectively, and $0.8 million and $(1.3) million for the six months ended June 30, 2023 and 2022, respectively.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934 (the "Exchange Act")) that are designed to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to the Company's management, including its principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on that evaluation, our management, including our Chief Executive Officer and Chief Financial Officer, concluded that our disclosure controls and procedures were not effective as of June 30, 2023, as the result of the material weakness in our internal control over financial reporting discussed below, which is currently being remediated.

Notwithstanding the material weakness, management believes that the condensed consolidated financial statements included in this report present fairly, in all material respects, the Company's financial condition, results of operations and cash flows for each of the periods presented in this report in conformity with accounting principles generally accepted in the United States of America.

Material Weakness in Internal Control over Financial Reporting

In connection with our evaluation for the period ended June 30, 2023, we identified a material weakness in internal control over financial reporting for the first quarter ended March 31, 2023 relating to management's review of its revenue recognition for contracts recognized over time isolated to our Engineered Systems segment. Specifically, for the quarter ended March 31, 2023, management did not retain appropriate documentation supporting the review of over time revenue recognition for customer contracts within the Engineered Systems segment.

The material weakness did not result in any material misstatement in our interim financial statements or disclosures, and there were no changes required to any of our previously released interim or audited consolidated financial statements

Remediation Efforts to Address Material Weakness

Management is committed to maintaining a strong internal control environment. In response to the identified material weakness, management, with the oversight of the Audit Committee of the Board of Directors, has taken actions toward the remediation of the material weakness in internal control over financial reporting, including reinforcing the importance of adherence to Company policies regarding control performance and related documentation with control owners, strengthening existing training programs for control owners, and developing monitoring activities to validate the performance of controls by control owners.

The Company anticipates the actions described above and resulting improvements in controls will strengthen the Company's processes, procedures and controls related to management's review of over time revenue recognition and will address the related material weakness. However, the material weakness cannot be considered remediated until the applicable control has operated for a sufficient period of time, and management has concluded, through testing, that the control is operating effectively.

Changes in Internal Control Over Financial Reporting

Other than the material weakness described above and the ongoing remediation of such material weakness, there were no changes in the Company's internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) during the quarter ended June 30, 2023 that materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Limitations on the Effectiveness of Controls

Control systems, no matter how well conceived and operated, are designed to provide a reasonable, but not an absolute, level of assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected. The Company conducts periodic evaluations of its internal controls to enhance, where necessary, its procedures and controls.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

See Note 13 to the unaudited Condensed Consolidated Financial Statements contained in Part I, Item 1 of this Quarterly Report on Form 10-Q for information regarding legal proceedings in which the Company is involved.

ITEM 1A. RISK FACTORS

There have been no material changes in the Company’s risk factors that were disclosed in “Part I – Item 1A. Risk Factors” of the Company's Annual Report on Form 10-K for the year ended December 31, 2022.

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

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table provides information about our purchases of the Company's equity securities for the three months ended June 30, 2023:

	Issuer's Purchases of Equity Securities			
(in thousands, except per share data) Period	Total Number of Shares Purchased [1]	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs
April 1, 2023 - April 30, 2023	—	—	—	$ 13,000
May 1, 2023 - May 31, 2023	—	—	—	13,000
June 1, 2023 - June 30, 2023	—	—	—	13,000
Total	—	—	—	

(1) On May 10, 2022, the Board of Directors authorized a $20.0 million share repurchase program as described within Note 8. The program expires on April 30, 2025.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

31.1	Rule 13(a)/15d-14(a) Certification by Chief Executive Officer
31.2	Rule 13(a)/15d-14(a) Certification by Chief Financial Officer
32.1	Certification of Chief Executive Officer (18 U.S. Section 1350)
32.2	Certification of Chief Financial Officer (18 U.S. Section 1350)
101.INS	Inline XBRL Instance 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
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

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.

CECO Environmental Corp.

By: /s/ Paul M. Gohr

Paul M. Gohr
Chief Accounting Officer
(principal accounting officer and duly authorized officer)

Date: August 8, 2023

Exhibit 31.1

Certification of Chief Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Todd Gleason, certify that:

1. I have reviewed this quarterly report on Form 10-Q of CECO Environmental Corp.;

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-15(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.

/s/ Todd Gleason

Todd Gleason
Chief Executive Officer

Date: August 8, 2023

Exhibit 31.2

Certification of Chief Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Peter Johansson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of CECO Environmental Corp.;

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-15(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.

/s/ Peter Johansson
Peter Johansson
Chief Financial and Strategy Officer

Date: August 8, 2023

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 CECO Environmental Corp. (the “Company”) on Form 10-Q for the six month period ended June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Todd Gleason, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge and belief, 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 as of the dates and for the periods expressed in the Report.

/s/ Todd Gleason

Todd Gleason
Chief Executive Officer

Date: August 8, 2023

Exhibit 32.2

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 CECO Environmental Corp. (the “Company”) on Form 10-Q for the six month period ended June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Peter Johansson, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge and belief, 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 as of the dates and for the periods expressed in the Report.

/s/ Peter Johansson

Peter Johansson
Chief Financial and Strategy Officer

Date: August 8, 2023