

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 March 31, 2019

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. 0-7099



CECO ENVIRONMENTAL CORP.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
Incorporation or organization)

14651 North Dallas Parkway
Suite 500
Dallas, Texas
(Address of principal executive offices)

13-2566064
(IRS Employer
Identification No.)

75254
(Zip Code)

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

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 files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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	<input type="checkbox"/>	Accelerated Filer	<input checked="" type="checkbox"/>
Non-Accelerated Filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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

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	CECE	The NASDAQ Stock Market LLC

The number of shares outstanding of each of the issuer's classes of common equity, as of the latest practical date: 35,051,760 shares of common stock, par value \$0.01 per share, as of April 30, 2019.

CECO ENVIRONMENTAL CORP. AND SUBSIDIARIES
QUARTERLY REPORT ON FORM 10-Q
For the quarter ended March 31, 2019

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PART I – FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

CONDENSED CONSOLIDATED BALANCE SHEETS

(dollars in thousands, except per share data)	(unaudited) MARCH 31, 2019	DECEMBER 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 28,167	\$ 43,676
Restricted cash	738	762
Accounts receivable, net	72,963	53,225
Costs and estimated earnings in excess of billings on uncompleted contracts	31,701	29,694
Inventories, net	19,780	20,817
Prepaid expenses and other current assets	10,439	10,117
Prepaid income taxes	—	1,388
Assets held for sale	1,170	1,186
Total current assets	164,958	160,865
Property, plant and equipment, net	11,650	22,200
Right-of-use assets from operating leases (Note 12)	13,260	—
Goodwill	152,066	152,156
Intangible assets – finite life, net	37,633	35,959
Intangible assets – indefinite life	14,314	18,258
Deferred charges and other assets	2,788	3,144
Total assets	\$ 396,669	\$ 392,582
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	\$ 79,201	\$ 80,229
Billings in excess of costs and estimated earnings on uncompleted contracts	23,596	20,144
Note payable	—	1,700
Income taxes payable	1,137	1,813
Total current liabilities	103,934	103,886
Other liabilities	22,572	26,925
Debt	74,725	74,456
Deferred income tax liability, net	7,226	8,755
Operating lease liabilities (Note 12)	10,822	—
Total liabilities	219,279	214,022
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, 34,979,895 and 34,953,825 shares issued and outstanding at March 31, 2019 and December 31, 2018, respectively	349	349
Capital in excess of par value	252,199	251,409
Accumulated loss	(62,165)	(59,427)
Accumulated other comprehensive loss	(12,637)	(13,415)
	177,746	178,916
Less treasury stock, at cost, 137,920 shares at March 31, 2019 and December 31, 2018	(356)	(356)
Total shareholders' equity	177,390	178,560
Total liabilities and shareholders' equity	\$ 396,669	\$ 392,582

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

CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(unaudited)

(dollars in thousands, except per share data)	THREE MONTHS ENDED MARCH 31,	
	2019	2018
Net sales	\$ 86,011	\$ 74,139
Cost of sales	57,579	48,578
Gross profit	28,432	25,561
Selling and administrative expenses	21,312	21,573
Amortization and earnout expenses	2,160	2,903
Loss (gain) on divestitures, net of selling costs	70	(11,177)
Restructuring expenses	—	112
Income from operations	4,890	12,150
Other expense, net	(640)	(356)
Interest expense	(1,544)	(1,920)
Income before income taxes	2,706	9,874
Income tax expense	842	4,111
Net income	\$ 1,864	\$ 5,763
Earnings per share:		
Basic	\$ 0.05	\$ 0.17
Diluted	\$ 0.05	\$ 0.17
Weighted average number of common shares outstanding:		
Basic	34,835,550	34,592,803
Diluted	35,360,042	34,641,390

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

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(unaudited)

(dollars in thousands)	THREE MONTHS ENDED MARCH 31,	
	2019	2018
Net income	\$ 1,864	\$ 5,763
Other comprehensive income (loss), net of tax:		
Interest rate swap	(213)	193
Foreign currency translation	979	2,010
Comprehensive income	\$ 2,630	\$ 7,966

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		Capital in excess of par value	Accumulated Loss	Accumulated Other Comprehensive Loss	Treasury Stock		Total Shareholders' Equity
	Shares	Amount				Shares	Amount	
Balance December 31, 2017	34,708	\$ 347	\$ 248,170	\$ (52,673)	\$ (8,919)	(138)	\$ (356)	\$ 186,569
Net income for the three-months ended March 31, 2018				5,763				5,763
Cumulative effect adjustment upon adoption of new accounting standards (ASU 2018-02) and (ASU 2014-09)				415	(1,067)			(652)
Exercise of stock options	2	—	4					4
Restricted stock units issued	12	—	(22)					(22)
Share based compensation earned	19	—	708					708
Adjustment for interest rate swap					193			193
Translation gain					2,010			2,010
Balance March 31, 2018	<u>34,741</u>	<u>\$ 347</u>	<u>\$ 248,860</u>	<u>\$ (46,495)</u>	<u>\$ (7,783)</u>	<u>(138)</u>	<u>\$ (356)</u>	<u>\$ 194,573</u>

	Common Stock		Capital in excess of par value	Accumulated (Loss)	Accumulated Other Comprehensive Loss	Treasury Stock		Total Shareholders' Equity
	Shares	Amount				Shares	Amount	
Balance December 31, 2018	34,954	\$ 349	\$ 251,409	\$ (59,427)	\$ (13,415)	(138)	\$ (356)	\$ 178,560
Net income for the three-months ended March 31, 2019				1,864				1,864
Cumulative effect adjustment upon adoption of new accounting standards (ASU 2017-12) and (ASU 2016-02)				(4,602)	12			(4,590)
Restricted stock units issued	12	—	(8)					(8)
Share based compensation earned	14	—	798					798
Adjustment for interest rate swap					(213)			(213)
Translation gain					979			979
Balance March 31, 2019	<u>34,980</u>	<u>\$ 349</u>	<u>\$ 252,199</u>	<u>\$ (62,165)</u>	<u>\$ (12,637)</u>	<u>(138)</u>	<u>\$ (356)</u>	<u>\$ 177,390</u>

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

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

(dollars in thousands)	THREE MONTHS ENDED MARCH 31,	
	2019	2018
Cash flows from operating activities:		
Net income	\$ 1,864	\$ 5,763
Adjustment to reconcile net income to net cash (used in) provided by operating activities:		
Depreciation and amortization	2,771	3,497
Unrealized foreign currency loss (gain)	561	(199)
Net gain on interest rate swaps	(44)	(53)
Earnout payments	—	(247)
Gain on sale of property and equipment	—	(9)
Loss (gain) on divestitures	70	(11,177)
Debt discount amortization	269	291
Share-based compensation expense	798	626
Bad debt expense	137	146
Inventory reserve expense	217	296
Deferred income tax benefit	—	(1,215)
Changes in operating assets and liabilities, net of divestitures:		
Accounts receivable	(19,627)	(412)
Costs and estimated earnings in excess of billings on uncompleted contracts	(1,607)	(2,662)
Inventories	821	(739)
Prepaid expense and other current assets	1,187	1,494
Deferred charges and other assets	41	258
Accounts payable and accrued expenses	(3,938)	6,989
Billings in excess of costs and estimated earnings on uncompleted contracts	3,443	(2,227)
Income taxes payable	(719)	3,043
Other liabilities	15	(215)
Net cash (used in) provided by operating activities	(13,741)	3,248
Cash flows from investing activities:		
Acquisitions of property and equipment	(423)	(466)
Net cash proceeds from divestitures	—	30,692
Proceeds from sale of property and equipment	—	112
Net cash (used in) provided by investing activities	(423)	30,338
Cash flows from financing activities:		
Net repayments on revolving credit lines	—	(2,336)
Repayments of debt	(1,700)	(28,156)
Payments on finance leases and financing liability	(116)	(171)
Proceeds from employee stock purchase plan, exercise of stock options, and dividend reinvestment plan	—	64
Net cash used in financing activities	(1,816)	(30,599)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	447	376
Net (decrease) increase in cash, cash equivalents and restricted cash	(15,533)	3,363
Cash, cash equivalents and restricted cash at beginning of period	44,438	30,659
Cash, cash equivalents and restricted cash at end of period	\$ 28,905	\$ 34,022
Cash paid during the period for:		
Interest	\$ 1,514	\$ 1,456
Income taxes	\$ 237	\$ 594
Non-cash transaction:		
Net consideration receivable from divestiture	\$ —	\$ 1,979

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”, “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 annual financial statements 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 March 31, 2019 and the results of operations, cash flows and shareholders’ equity for the three-month periods ended March 31, 2019 and 2018. The results of operations for the three-month periods ended March 31, 2019 are not necessarily indicative of the results to be expected for the full year. The balance sheet as of December 31, 2018 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, 2018 as filed with the SEC.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (“GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets 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 Company’s Annual Report on Form 10-K for the year ended December 31, 2018 filed with the SEC.

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

2. New Financial Accounting Pronouncements

Accounting Standards adopted in Fiscal 2019

In February 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2016-02, “Leases,” which, together with its related clarifying ASUs, provides revised guidance for lease accounting and related disclosure requirements and establishes a right-of-use (“ROU”) model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Under the guidance, leases are classified as either finance or operating, with classification affecting the pattern of expense recognition. We adopted ASU 2016-02 effective January 1, 2019, using the modified retrospective method which was applied to leases that existed or were entered into on or after January 1, 2019. The Company elected to utilize the package of practical expedients that allows us to 1) not reassess whether any expired or existing contracts are or contain leases, 2) retain the existing classification of lease contracts as of the date of adoption, and 3) not reassess initial direct costs for any existing leases. We also elected to not separate lease and non-lease components, for all leases. The adoption of this standard had a material impact on our consolidated balance sheet due to the recognition of ROU assets and liabilities for our operating leases totaling \$13.3 million, as well as an adjustment to beginning equity of \$4.6 million, net of tax, related to prior sales lease back transaction. The adoption of the standard did not have a material impact on our statement of income or liquidity. See Note 12 – Leases for disclosures related to the amended guidance.

In August 2017, the FASB issued ASU 2017-12, “Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities.” This guidance expands an entity’s ability to apply hedge accounting for nonfinancial and financial risk components and allows for a simplified approach for fair value hedging of interest rate risk. Additionally, this ASU eliminates the need to separately measure and report hedge ineffectiveness and generally requires the entire change in fair value of a hedging instrument to be presented in the same income statement line as the hedged item. The Company adopted this ASU on January 1, 2019 and applied the modified retrospective approach through a cumulative-effect adjustment from accumulated other comprehensive income (“AOCI”) to retained earnings as of the effective date. The impact of the adoption of this ASU was not material.

Accounting Standards Yet to be Adopted

In August 2018, the FASB issued ASU 2018-14, “Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans,” that makes minor changes to the disclosure requirements for employers that sponsor defined benefit pension and/or other postretirement benefit plans. The new guidance eliminates requirements for certain disclosures that are no longer considered cost beneficial and requires new ones that the FASB considers pertinent. ASU 2018-14 is effective for the Company January 1, 2021. The Company is evaluating the impact of the adoption of ASU 2018-14 on its consolidated financial statements.

3. Accounts Receivable

(table only in thousands)	March 31, 2019	December 31, 2018
Contract receivables	\$ 65,453	\$ 48,826
Trade receivables	10,435	7,296
Allowance for doubtful accounts	(2,925)	(2,897)
Total accounts receivable	<u>\$ 72,963</u>	<u>\$ 53,225</u>

Balances billed but not paid by customers under retainage provisions in contracts within the Condensed Consolidated Balance Sheets amounted to approximately \$0.9 million at March 31, 2019 and December 31, 2018. Retainage receivables on contracts in progress are generally collected within a year after contract completion.

Bad debt expense was \$0.1 million for the three-month periods ended March 31, 2019 and 2018.

4. Costs and Estimated Earnings on Uncompleted Contracts

Our contracts have various lengths to completion ranging from a few days to several months. We anticipate that a majority of our current contracts will be completed within the next twelve months. A significant amount of our revenue within the Energy Solutions and Industrial Solutions segments is recognized over a period of time as we perform under the contract because control of the work in process transfers continuously to the customer. The assets and liabilities recognized in association with these contracts are as follows:

(table only in thousands)	March 31, 2019	December 31, 2018
Costs incurred on uncompleted contracts	\$ 193,393	\$ 174,168
Estimated earnings	76,693	67,427
Total costs and estimated earnings on uncompleted contracts, gross	270,086	241,595
Less billings to date	(261,981)	(232,045)
Total costs and estimated earnings on uncompleted contracts, net	<u>\$ 8,105</u>	<u>\$ 9,550</u>
Included in the accompanying condensed consolidated balance sheets under the following captions:		
Costs and estimated earnings in excess of billings on uncompleted contracts	\$ 31,701	\$ 29,694
Billings in excess of costs and estimated earnings on uncompleted contracts	(23,596)	(20,144)
Total costs and estimated earnings on uncompleted contracts, net	<u>\$ 8,105</u>	<u>\$ 9,550</u>

Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Changes to job performance, job conditions, and estimated profitability may result in revisions to contract revenue and costs, and are recognized in the period in which the revisions are made. No provision for estimated losses on uncompleted contracts was required as of March 31, 2019 or December 31, 2018.

5. Inventories

(table only in thousands)	March 31, 2019	December 31, 2018
Raw materials	\$ 15,867	\$ 15,819
Work in process	5,392	6,098
Finished goods	748	807
Obsolescence allowance	(2,227)	(1,907)
Total inventories	<u>\$ 19,780</u>	<u>\$ 20,817</u>

Amounts credited to the allowance for obsolete inventory and charged to cost of sales amounted to \$0.2 million and \$0.3 million for the three-month periods ended March 31, 2019 and 2018, respectively.

6. Goodwill and Intangible Assets

(table only in thousands) Goodwill / Tradenames	Three months ended March 31, 2019		Year ended December 31, 2018	
	Goodwill	Tradenames	Goodwill	Tradenames
Beginning balance	\$ 152,156	\$ 18,258	\$ 166,951	\$ 19,691
Transfers to finite life classification	—	(3,904)	—	—
Divestitures	—	—	(14,317)	(1,340)
Foreign currency translation	(90)	(40)	(478)	(93)
	<u>\$ 152,066</u>	<u>\$ 14,314</u>	<u>\$ 152,156</u>	<u>\$ 18,258</u>

(table only in thousands) Intangible assets – finite life	As of March 31, 2019		As of December 31, 2018	
	Cost	Accum. Amort.	Cost	Accum. Amort.
Technology	\$ 14,457	\$ 9,674	\$ 14,457	\$ 9,414
Customer lists	68,943	39,611	68,943	37,873
Noncompetition agreements	910	799	910	762
Tradename	5,294	712	1,390	579
Foreign currency adjustments	(1,554)	(379)	(1,520)	(407)
	<u>\$ 88,050</u>	<u>\$ 50,417</u>	<u>\$ 84,180</u>	<u>\$ 48,221</u>

Activity for the three-months ended March 31, 2019 and 2018 is as follows:

(table only in thousands)	2019	2018
Intangible assets – finite life, net at beginning of period	\$ 35,959	\$ 49,956
Amortization expense	(2,160)	(2,555)
Divestitures	—	(2,372)
Transfers from indefinite life classification	3,904	—
Foreign currency adjustments	(70)	259
Intangible assets – finite life, net at end of period	<u>\$ 37,633</u>	<u>\$ 45,288</u>

Amortization expense of finite life intangible assets was \$2.2 million and \$2.6 million for the three-month periods ended March 31, 2019 and 2018, respectively. Amortization over the next five years for finite life intangibles is expected to be \$6.3 million for the remainder of 2019, \$6.8 million in 2020, \$5.7 million in 2021, \$4.8 million in 2022, and \$4.0 million in 2023.

During the three-month period ended March 31, 2019, the Company reassessed the useful lives of certain tradenames and determined that \$3.9 million of their tradenames would have useful lives of 10 years now versus indefinite. The Company did not identify any triggering events during the three-month period ended March 31, 2019 that would require an interim impairment assessment of goodwill or intangible assets.

7. Accounts Payable and Accrued Expenses

(table only in thousands)	March 31, 2019	December 31, 2018
Trade accounts payable, including due to subcontractors	\$ 53,315	\$ 51,984
Compensation and related benefits	5,375	7,578
Short-term lease liabilities	2,939	—
Accrued warranty	3,509	3,384
Contract liabilities	5,982	6,541
Other accrued expenses	8,081	10,742
Total accounts payable and accrued expenses	<u>\$ 79,201</u>	<u>\$ 80,229</u>

8. Senior debt

Debt consisted of the following at March 31, 2019 and December 31, 2018:

(table only in thousands)	March 31, 2019	December 31, 2018
Outstanding borrowings under Credit Facility (defined below).		
Term loan balance due upon maturity in September 2020.		
- Term loan	\$ 76,147	\$ 76,147
- U.S. Dollar revolving loans	—	—
- Unamortized debt discount	(1,422)	(1,691)
Total outstanding borrowings under Credit Facility	<u>\$ 74,725</u>	<u>\$ 74,456</u>

During the three-month period ended March 31, 2019, the Company made no payments on the outstanding balance of the term loan. Due to the additional prepayments made in 2018, there are no payments due on the term loan until the final scheduled principal payment of \$76.1 million, in September 2020.

United States Debt

As of March 31, 2019 and December 31, 2018, \$27.4 million and \$29.3 million of letters of credit were outstanding, respectively. Total unused credit availability under the Company's senior secured term loan, senior secured U.S. dollar revolving loans with sub-facilities for letters of credit and swing-line loans and senior secured multi-currency revolving credit facility for U.S. dollar and specific foreign currency loans (collectively, the "Credit Facility") was \$52.6 million and \$50.7 million at March 31, 2019 and December 31, 2018, respectively. Revolving loans may be borrowed, repaid and reborrowed until September 3, 2020, at which time all outstanding balances of the Credit Facility must be repaid.

The weighted average stated interest rate on outstanding borrowings was 5.25% and 5.27% at March 31, 2019 and December 31, 2018, respectively.

In accordance with the Credit Facility terms, the Company entered into an interest rate swap to hedge against interest rate exposure related to a portion of the outstanding debt indexed to LIBOR market rates. The fair value of the interest rate swap was an asset of \$0.3 million and \$0.5 million as of March 31, 2019 and December 31, 2018, respectively, and is classified within the "Deferred charges and other assets" on the Condensed Consolidated Balance Sheets. The Company designated the interest rate swap as an effective hedge; therefore, the changes to the fair value of the interest rate swap have been recorded in other comprehensive income as the hedge is deemed effective.

Under the terms of the Credit Facility, the Company is required to maintain certain financial covenants, including the maintenance of a Consolidated Leverage Ratio as well as restricting the amount of capital expenditures the Company may make in 2019. Through March 31, 2019, the maximum Consolidated Leverage Ratio is 3.75, after which time it will decrease to 3.50 through September 30, 2019. The Consolidated Leverage Ratio will then decrease to 3.25 until the end of the term of the Credit Facility.

As of March 31, 2019 and December 31, 2018, the Company was in compliance with all related financial and other restrictive covenants under the Credit Facility.

Foreign Debt

The Company has a number of facilities and bilateral agreements in various countries currently supported by letters of credit issued under the Credit Facility. In addition, a subsidiary of the Company located in the Netherlands has a Euro-denominated bank guarantee agreement, under which \$3.1 million in bank guarantees were outstanding as of March 31, 2019. As of March 31, 2019, the borrowers of these facilities and agreements were in compliance with all related financial and other restrictive covenants.

9. Earnings and Dividends per Share

The computational components of basic and diluted earnings per share for the three-month periods ended March 31, 2019 and 2018 are below.

	For the three month period ended March 31,	
	2019	2018
(Table only in thousands)		
Numerator (for basic and diluted earnings per share)		
Net income	\$ 1,864	\$ 5,763
Denominator		
Basic weighted-average shares outstanding	34,836	34,593
Common stock equivalents arising from stock options and restricted stock awards	524	48
Diluted weighted-average shares outstanding	35,360	34,641

Options and restricted stock units included in the computation of diluted earnings per share are calculated using the treasury stock method. For the three-month periods ended March 31, 2019 and 2018, 0.5 million and 0.6 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.

10. 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 \$0.8 million and \$0.6 million of share compensation related expense during the three-month periods ended March 31, 2019 and 2018, respectively.

The Company granted zero options during the three-month periods ended March 31, 2019 and 2018, respectively.

The Company granted approximately 400,000 and 20,000 restricted stock units during the three-month periods ended March 31, 2019 and 2018, respectively. The weighted-average fair value of restricted stock units was estimated at \$7.24 and \$4.27 per unit granted during the three-months ended March 31, 2019 and 2018, respectively. The fair value of the restricted stock units was determined by using the value of stock in the open market on the date of grant.

The fair value of the stock-based awards granted is recorded as compensation expense on a straight-line basis over the vesting periods of the awards.

There were zero and approximately 2,000 options exercised during the three-months ended March 31, 2019 and 2018, respectively. The Company received zero and \$4,000 in cash from employees exercising options during the three-months ended March 31, 2019 and 2018. The intrinsic value of options exercised during the three-months ended March 31, 2019 and 2018 was zero and \$6,000, respectively.

11. Pension and Employee Benefit Plans

We sponsor 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.

We also sponsor a postretirement health care plan for office employees retired before January 1, 1990. The plan allowed retirees who attained the age of 65 to elect the type of coverage desired.

We present service cost within cost of sales and selling and administrative expenses depending on where the relevant employees compensation costs are recorded, and we present other components of net periodic benefit cost (gain) within other expense, net on the Condensed Consolidated Statements of Income.

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

(table only in thousands)	Three Months Ended March 31,	
	2019	2018
Pension plan:		
Service cost	\$ —	\$ 97
Interest cost	326	298
Expected return on plan assets	(313)	(476)
Amortization of net actuarial loss	65	59
Net periodic benefit cost (gain)	<u>\$ 78</u>	<u>\$ (22)</u>
Health care plan:		
Interest cost	\$ 1	\$ 1
Amortization of loss	2	2
Net periodic benefit cost	<u>\$ 3</u>	<u>\$ 3</u>

We made contributions to our defined benefit plans during the three-months ended March 31, 2019 and 2018 totaling \$0.1 million and \$0.2 million, respectively. We anticipate \$0.4 million and \$24,000 of further contributions to fund the pension plan and the retiree health care plan, respectively, during the remainder of 2019. The unfunded liability of the plans of \$8.8 million as of March 31, 2019 and December 31, 2018 is included in Other liabilities on our Condensed Consolidated Balance Sheets.

12. Leases

Our leasing activity is primarily related to buildings used for manufacturing, warehousing, sales, and administrative activities. We determine if an arrangement is a lease at inception. Many of our lease agreements contain renewal options; however, we do not recognize right-of-use assets or lease liabilities for renewal periods unless it is determined that we are reasonably certain of renewing the lease at inception or when a triggering event occurs. Some of our lease agreements contain rent escalation clauses, free-rent periods, or other lease concessions. We recognize our minimum rental expense on a straight-line basis based on the fixed components of a lease arrangement. Variable lease costs represent amounts that are not fixed in nature and are not tied to an index or rate, and are recognized as incurred. Our variable lease costs are not material.

In determining our right-of-use assets and lease liabilities, we apply a discount rate to the minimum lease payments within each lease agreement. ASU 2016-02 requires us to use the rate of interest that a lessee would have to pay to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment. When we cannot readily determine the discount rate implicit in the lease agreement, we utilize our incremental borrowing rate. To estimate our specific incremental borrowing rates we consider, among other factors, interest rates on our existing credit facilities, risk-free rates, the types of assets being leased, and the term of the leases.

The components of lease expense were as follows:

(table only in thousands)	For the Three Months Ended March 31, 2019
Operating lease cost (a)	\$ 913
Finance lease cost:	
Amortization of right-of-use assets	77
Interest on lease liability	92
Total finance lease cost	169
Total lease cost	<u>\$ 1,082</u>

(a) includes variable lease costs which are immaterial

Supplemental cash flow information related to leases was as follows:

(table only in thousands)	For the Three Months Ended March 31, 2019
Cash paid for amounts included in the measurement of lease liabilities	
Operating cash flows from operating leases	\$ 871
Operating cash flows from finance leases	\$ 92
Financing cash flows from finance leases	\$ 116
Right of use assets obtained in exchange for lease obligations	
Operating leases	<u>\$ 1,039</u>

Supplemental balance sheet information related to leases was as follows:

(table only in thousands)	March 31, 2019
Operating leases	
Right-of-use assets from operating leases	\$ 13,260
Accounts payable and accrued expenses	\$ 2,452
Operating lease liabilities	10,822
Total operating lease liabilities	<u>\$ 13,274</u>
Finance leases	
Property, plant and equipment, net	\$ 3,462
Accounts payable and accrued expenses	\$ 487
Other liabilities	7,731
Total finance lease liabilities	<u>\$ 8,218</u>
Weighted-average remaining lease term	
Operating leases	9 years
Finance leases	12 years
Weighted-average discount rate	
Operating leases	5.4%
Finance leases	4.5%

As of March 31, 2019, maturities of lease liabilities were as follows:

(table only in thousands)	Operating Leases		Finance Leases	
2019	\$	2,532	\$	632
2020		2,477		855
2021		2,061		872
2022		1,452		889
2023		1,359		907
Thereafter		6,034		6,409
Total minimum lease payments	\$	15,915	\$	10,564
Less imputed interest		(2,641)		(2,346)
Lease liability	\$	<u>13,274</u>	\$	<u>8,218</u>

As previously disclosed in our 2018 Annual Report on Form 10-K and under previous lease accounting standards, future minimum lease payments for operating leases having initial or remaining noncancellable lease terms in excess of one year would have been as follows:

(table only in thousands)	December 31, 2018	
2019	\$	2,745
2020		1,880
2021		1,454
2022		931
2023		851
Thereafter		2,278
Total	\$	<u>10,139</u>

13. Income Taxes

We file income tax returns in various federal, state and local jurisdictions. Tax years from 2014 forward remain open for examination by Federal authorities. Tax years from 2013 forward remain open for all significant state and foreign authorities.

We account for uncertain tax positions pursuant to ASC Topic 740, "Income Taxes." As of March 31, 2019 and December 31, 2018, the liability for uncertain tax positions totaled approximately \$1.0 million and \$0.9 million, respectively, which is included in Other liabilities on our Condensed Consolidated Balance Sheets. We recognize 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 U.S. income tax in 2017 as a result of the 2017 Tax Cuts and Jobs Act (the "Tax Act"), we intend to repatriate foreign-held cash as needed. As of March 31, 2019 and December 31, 2018, we have recorded deferred income taxes of approximately \$0.6 million on the undistributed earnings of our foreign subsidiaries. This amount is attributable primarily to the foreign withholding taxes that would become payable should we decide to repatriate cash held in our foreign operations.

Income tax expense was \$0.8 million for the first quarter of 2019, compared with income tax expense of \$4.1 million for the first quarter of 2018. The effective income tax rate for the first quarter of 2019 was 31.1%, compared with 41.6% for first quarter of 2018. The effective income tax rate for the first quarter of 2019 is higher than the U.S. federal statutory rate of 21% due to state income taxes and unrecognized tax losses in certain foreign jurisdictions. The comparable period effective tax rate was higher than the U.S. federal statutory rate most significantly due to a permanent book-tax difference related to the accounting treatment of goodwill on 2018 divestitures. Our effective tax rate is affected by certain other permanent differences, including state income taxes, non-deductible incentive stock-based compensation, the Global Intangible Low-Taxed Income inclusion and Foreign-Derived Intangible Income deduction, tax credits, and differences in tax rates among the jurisdictions in which we operate.

14. Financial Instruments

Our 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 March 31, 2019 and December 31, 2018, due to their short-term nature or variable, market-driven interest rates.

The fair value of the debt issued under the Credit Facility was \$76.1 million at March 31, 2019 and December 31, 2018, respectively. The fair value of the note payable was \$1.7 million at December 31, 2018.

In accordance with the terms of the Credit Facility, the Company entered into an interest rate swap on December 30, 2015 to hedge against interest rate exposure related to a portion of the outstanding debt indexed to LIBOR market rates. See Note 8 for further information regarding the interest rate swap.

At March 31, 2019 and December 31, 2018, the Company had cash and cash equivalents of \$28.2 million and \$43.7 million, respectively, of which \$25.4 million and \$23.3 million, respectively, was held outside of the United States, principally in the Netherlands, United Kingdom, China, and Canada.

15. Commitments and Contingencies – Legal Matters

Asbestos cases

Our subsidiary, Met-Pro Technologies LLC (“Met-Pro”), beginning in 2002, began to be 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 March 31, 2019 for cases involving asbestos-related claims were \$2.9 million, of which, together with all legal fees other than corporate counsel expenses, \$2.8 million has been paid by the Company’s insurers. The average cost per settled claim, excluding legal fees, was approximately \$35,000.

Based upon the most recent information available to the Company regarding such claims, there were a total of 191 cases pending against the Company as of March 31, 2019 (with Illinois, New York, Pennsylvania and West Virginia having the largest number of cases), as compared with 208 cases that were pending as of December 31, 2018. During the three-months ended March 31, 2019, nine new cases were filed against the Company, and the Company was dismissed from 21 cases and settled five 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.

Summary

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, we record 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.

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

16. Business Segment Information

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 three reportable segments. The results of the segments are reviewed through to the "Income (loss) from operations" line on the Consolidated Statements of Income.

During the first quarter of 2019, as a result of further evaluating the Company's operating structure, management determined that a realignment of the Company's segments with current customer solutions we provide and end markets we serve would help maximize growth and improve customer experience. As a result of this minor realignment, the operating results of the reportable segments Fluid Handling Solutions and Industrial Solutions have been reclassified to have their results align for the three-month periods ended March 31, 2019 and 2018.

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

Energy Solutions segment: Our Energy Solutions segment serves the Energy market, where we are a key part of helping meet the global demand for Clean Energy with products and services that support our customers with efficient solutions and technologies to keep the world clean and safe. Our offerings improve air quality and solves fluid handling needs with market leading, highly engineered, and customized solutions for the power generation, oil & gas, and petrochemical industries.

Industrial Solutions segment: Our Industrial Solutions segment serves the Industrial Pollution Control market where our aim is to address the growing need to protect the air we breathe and help our customers' desires for sustainability upgrades beyond carbon footprint issues. Our offerings improve air quality with a compelling solution set of air pollution control technologies that enable our customers to reduce their carbon footprint, lower energy consumption, minimize waste and meet compliance targets for toxic emissions, fumes, volatile organic compounds, and industrial odors.

Fluid Handling Solutions segment: Our Fluid Handling Solutions segment offers unique pump and filtration solutions that maintain safe and clean operations in some of the most harsh and toxic environments. In this market, we provide solutions for mission-critical applications to a wide variety of industries including, but not limited to, plating and metal finishing, food and beverage, chemical, petrochemical, pharmaceutical, wastewater treatment, desalination and the aquarium & aquaculture markets.

The financial segment information is presented in the following tables:

(dollars in thousands)	Three Months Ended March 31,	
	2019	2018
Net Sales (less intra-, inter-segment sales)		
Energy Solutions Segment	\$ 55,188	\$ 39,973
Industrial Solutions Segment	18,853	18,448
Fluid Handling Solutions Segment	11,970	15,556
Corporate and Other(1)	—	162
Net sales	\$ 86,011	\$ 74,139

(1) Includes adjustment for revenue on intercompany jobs.

(dollars in thousands)	Three Months Ended March 31,	
	2019	2018
Income from Operations		
Energy Solutions Segment	\$ 9,291	\$ 3,624
Industrial Solutions Segment	602	1,198
Fluid Handling Solutions Segment	2,358	3,381
Corporate and Other(2)	(7,361)	4,533
Eliminations	—	(586)
Income from operations	\$ 4,890	\$ 12,150

(2) Includes gain (loss) on divestitures, net of selling costs (see Note 17 – Divestitures), corporate compensation, professional services, information technology, and other general and administrative corporate expenses. This figure excludes earnout expenses, which are recorded in the segment in which the expense occurs.

(dollars in thousands)	Three Months Ended March 31,	
	2019	2018
Property and Equipment Additions		
Energy Solutions Segment	\$ 50	\$ 18
Industrial Solutions Segment	61	75
Fluid Handling Solutions Segment	152	273
Corporate and Other	160	100
Property and equipment additions	<u>\$ 423</u>	<u>\$ 466</u>

(dollars in thousands)	Three Months Ended March 31,	
	2019	2018
Depreciation and Amortization		
Energy Solutions Segment	\$ 1,580	\$ 2,158
Industrial Solutions Segment	334	286
Fluid Handling Solutions Segment	738	990
Corporate and Other	119	63
Depreciation and amortization	<u>\$ 2,771</u>	<u>\$ 3,497</u>

(dollars in thousands)	March 31, 2019	December 31, 2018
	Identifiable Assets	
Energy Solutions Segment	\$ 261,164	\$ 245,842
Industrial Solutions Segment	59,058	55,582
Fluid Handling Solutions Segment	72,621	72,507
Corporate and Other ⁽³⁾	3,826	18,651
Identifiable assets	<u>\$ 396,669</u>	<u>\$ 392,582</u>

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

(dollars in thousands)	March 31, 2019	December 31, 2018
Goodwill		
Energy Solutions Segment	\$ 97,053	\$ 97,143
Industrial Solutions Segment	23,436	23,436
Fluid Handling Solutions Segment	31,577	31,577
Goodwill	<u>\$ 152,066</u>	<u>\$ 152,156</u>

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 indicated in the following tables:

(dollars in thousands)	Three Months Ended March 31, 2019						
	Total Sales	Intra-Segment Sales	Less Inter-Segment Sales			Corp and Other	Net Sales to Outside Customers
			Industrial	Energy	Fluid		
Net Sales							
Energy Solutions Segment	\$ 56,150	\$ (891)	\$ (59)	—	\$ (12)	\$ —	\$ 55,188
Industrial Solutions Segment	21,822	(2,177)	—	(746)	(46)	—	18,853
Fluid Handling Solutions Segment	12,416	(394)	(52)	—	—	—	11,970
Corporate and Other	—	—	—	—	—	—	—
Net Sales	<u>\$ 90,388</u>	<u>\$ (3,462)</u>	<u>\$ (111)</u>	<u>\$ (746)</u>	<u>\$ (58)</u>	<u>\$ —</u>	<u>\$ 86,011</u>

(dollars in thousands)	Three Months Ended March 31, 2018						
	Total Sales	Intra-Segment Sales	Less Inter-Segment Sales			Corp and Other	Net Sales to Outside Customers
			Industrial	Energy	Fluid		
Net Sales							
Energy Solutions Segment	\$ 43,128	\$ (2,469)	\$ (686)	\$ —	\$ —	\$ —	\$ 39,973
Industrial Solutions Segment	19,379	(791)	—	(140)	—	—	18,448
Fluid Handling Solutions Segment	16,115	(515)	(44)	—	—	—	15,556
Corporate and Other	—	—	—	—	—	162	162
Net Sales	<u>\$ 78,622</u>	<u>\$ (3,775)</u>	<u>\$ (730)</u>	<u>\$ (140)</u>	<u>\$ —</u>	<u>\$ 162</u>	<u>\$ 74,139</u>

17. Divestitures

Strobic Air Corporation

On March 30, 2018, the Company completed the sale of Strobic Air Corporation (“Strobic”) as part of its strategic decision to exit brands that do not align with the CECO portfolio to increase focus on better serving the energy and industrial solutions and fluid handling markets. The sales price was \$28.5 million, subject to post-closing purchase price adjustments. The disposition resulted in an estimated gain of \$6.9 million recorded in the first quarter of 2018, comprised of \$27.9 million of net proceeds received as consideration after estimated post-closing purchase price adjustments less net assets disposed of \$18.8 million and transaction costs of \$2.2 million. The net assets disposed were primarily comprised of \$13.0 million of goodwill, \$2.3 million of definite-lived intangible assets and \$1.2 million of indefinite-lived intangible assets allocated to the Strobic business. In the first quarter of 2018, Strobic reported \$4.2 million in net sales and \$1.1 million in income from operations. Strobic results through the date of disposition are included within income before income taxes in the Condensed Consolidated Statement of Income and are reported within the Fluid Handling Solutions segment. The sale of Strobic did not constitute a significant strategic shift that will have a material impact on the Company’s ongoing operations and financial results.

Keystone Filter

On February 28, 2018, the Company completed the sale of the Keystone Filter brand (“Keystone”) as part of its strategic decision to exit brands that do not align with the CECO portfolio to increase focus on better serving energy and industrial solutions and fluid handling markets. The sales price was \$7.5 million, subject to post-closing purchase price adjustments. The disposition resulted in an estimated gain of \$4.3 million recorded in the first quarter of 2018, comprised of \$7.2 million of net proceeds received as consideration after estimated post-closing purchase price adjustments less net assets disposed of \$2.7 million and transaction costs of \$0.2 million. Keystone results are reported within the Fluid Handling Solutions segment through the date of disposition.

Zhongli

On November 27, 2018, the Company completed the sale of Jiangyin Zhongli Industrial Technology Co. Ltd (“Zhongli”), a business in our Energy Solutions segment operating in China for a price of \$3.6 million. In the third quarter of 2018, we classified the assets and liabilities of Zhongli as held-for-sale. In connection with classifying this business as held-for-sale, GAAP required us to assess impairment by comparing the estimated selling price, less cost to sell to our carrying value in Zhongli. Based on this analysis, we recorded a \$15.1 million estimated loss. The disposal of this business does not constitute a significant strategic shift that will have a material impact on the Company’s ongoing operations and financial results. In the first quarter of 2018, Zhongli reported net sales of \$1.7 million. Zhongli results are reported within the Energy Solutions segment through the date of disposition.

CECO ENVIRONMENTAL CORP. AND SUBSIDIARIES
MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION
AND RESULTS OF OPERATIONS

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-month periods ended March 31, 2019 and 2018 reflect the consolidated operations of the Company and its subsidiaries.

CECO is a global leader in industrial air quality and fluid handling serving the energy, industrial and other niche markets through an attractive asset-light business model. CECO provides innovative technology and application expertise that helps companies grow their businesses with safe, clean, and more efficient solutions to help protect our shared environment.

CECO serves diverse industries globally by working to improve air quality, optimize the energy value chain, and provide customized engineered solutions in our customer's mission critical applications. The secular growth industries CECO serves include oil & gas, power generation, water and wastewater, battery production, poly silicon fabrication, chemical and petrochemical processing, along with a wide range of other industries.

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 ("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 supplemental 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, divestitures 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 the acquisition and divestitures. 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-month periods ended March 31, 2019 and 2018 are as follows:

(dollars in millions)	Three Months Ended March 31,	
	2019	2018
Net sales	\$ 86.0	\$ 74.1
Cost of sales	57.6	48.5
Gross profit	\$ 28.4	\$ 25.6
<i>Percent of sales</i>	33.0%	34.5%
Selling and administrative expenses	\$ 21.2	\$ 21.6
<i>Percent of sales</i>	24.7%	29.1%
Amortization and earnout expenses	\$ 2.2	\$ 2.9
Loss (gain) on divestitures, net of selling costs	\$ 0.1	\$ (11.2)
Restructuring expenses	\$ —	\$ 0.1
Operating income	\$ 4.9	\$ 12.2
<i>Operating margin</i>	5.7%	16.5%

To compare operating performance between the three-month periods ended March 31, 2019 and 2018, the Company has adjusted GAAP operating income to exclude (1) loss (gain) on divestitures, net of selling costs necessary to complete the divestiture such as legal, accounting and compliance, (2) amortization and contingent acquisition expenses, including amortization of acquisition related intangibles, retention, severance, and earnout expenses, and (3) restructuring expenses. See “Note Regarding Use of Non-GAAP Financial Measures” above. The following table presents the reconciliation of GAAP operating income and GAAP operating margin to non-GAAP operating income and non-GAAP operating margin:

(dollars in millions)	Three Months Ended March 31,	
	2019	2018
Operating income as reported in accordance with GAAP	\$ 4.9	\$ 12.2
Operating margin in accordance with GAAP	5.7%	16.5%
Amortization and earnout expenses	2.2	2.9
Loss (gain) on divestitures, net of selling costs	0.1	(11.2)
Restructuring expenses	—	0.1
Non-GAAP operating income	\$ 7.2	\$ 4.0
Non-GAAP operating margin	8.4%	5.4%

In 2018, we divested three non-core businesses; Keystone filter brand (“Keystone”) and Strobic Air Corporation (“Strobic”) in the first quarter and Jiangyin Zhongli Industrial Technology Co. Ltd. (“Zhongli”) in the fourth quarter (collectively, the “Divestitures”). The exclusion of the operating results of the Divestitures subsequent to their disposition impacts the comparability of our consolidated and segment operating results.

Consolidated sales for the first quarter of 2019 increased \$11.9 million, or 16.0%, to \$86.0 million compared with \$74.1 million in the first quarter of 2018. The increase is primarily attributable to volume growth, period over period, for the Company’s refinery-related products and midstream oil & gas markets, partially offset by the impact of Divestitures. Excluding the impact of Divestitures, sales increased \$18.4 million, or 27.2%.

Gross profit increased \$2.8 million, or 10.9%, to \$28.4 million in the first quarter of 2019 compared with \$25.6 million in the same period of 2018. The increase in gross profit is primarily attributable to sales volume increases period over period. Gross profit as a percentage of sales decreased to 33.0% in the first quarter of 2019 compared with 34.5% in the first quarter of 2018.

Orders booked were \$97.3 million during the first quarter of 2019 as compared with \$95.0 million during the first quarter of 2018. The increase is primarily attributable to increased orders for scrubbers, period over period, partially offset by a reduction in orders for refinery-related products and the impact of Divestitures. Excluding the impact of the Divestitures, bookings increased \$7.0 million.

Selling and administrative expenses were \$21.2 million for the first quarter of 2019 compared with \$21.6 million for the first quarter of 2018. Selling and administrative expenses decreased as a percentage of sales to 24.7% in the first quarter of 2019 compared with 29.1% in the first quarter of 2018. The decrease in selling and administrative expenses as a percentage of sales is primarily attributable to the increase in sales.

Amortization and earnout expense was \$2.2 million for the first quarter of 2019 compared with \$2.9 million for the first quarter of 2018. The decrease in expense is primarily attributable to a \$0.3 million decrease in earn-out expense and a \$0.4 million decrease in definite-lived intangible asset amortization.

Operating income decreased \$7.3 million to \$4.9 million in the first quarter of 2019 compared with \$12.2 million during the first quarter of 2018. The decrease is due to the gain on divestitures, net of selling costs of \$11.2 million in the first quarter of 2018, offset by the factors described above.

Non-GAAP operating income was \$7.2 million for the first quarter of 2019 compared with \$4.0 million for the first quarter of 2018. The increase in non-GAAP operating income is primarily attributable to higher sales, which led to an increase in gross profit. Non-GAAP operating income as a percentage of sales increased to 8.4% for the first quarter of 2019 from 5.4% for the first quarter of 2018.

Interest expense decreased to \$1.5 million in the first quarter of 2019 from \$1.9 million for the first quarter of 2018. The decrease is due to a reduced debt balance in 2019 in comparison to 2018, resulting in lower interest expense incurred.

Income tax expense was \$0.8 million for the first quarter of 2019, compared with income tax expense of \$4.1 million for the first quarter of 2018. The effective income tax rate for the first quarter of 2019 was 31.1%, compared with 41.6% for first quarter of 2018. The effective income tax rate for the first quarter of 2019 is higher than the U.S. federal statutory rate of 21% due to state income taxes and unrecognized tax losses in certain foreign jurisdictions. The comparable period effective tax rate was higher than the U.S. federal statutory rate most significantly due to a permanent book-tax difference related to the accounting treatment of goodwill on 2018 divestitures. Our effective tax rate is affected by certain other permanent differences, including state income taxes, non-deductible incentive stock-based compensation, the Global Intangible Low-Taxed Income inclusion and Foreign-Derived Intangible Income deduction, tax credits, 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 three reportable segments. The results of the segments are reviewed through "Income from operations" on the unaudited Condensed Consolidated Statements of Income.

(dollars in thousands)	Three Months Ended March 31,	
	2019	2018
Net Sales (less intra-, inter-segment sales)		
Energy Solutions Segment	\$ 55,188	\$ 39,973
Industrial Solutions Segment	18,853	18,448
Fluid Handling Solutions Segment	11,970	15,556
Corporate and Other ⁽¹⁾	—	162
Net sales	\$ 86,011	\$ 74,139

(1) Includes adjustment for revenue on intercompany jobs.

(dollars in thousands)	Three Months Ended March 31,	
	2019	2018
Income from Operations		
Energy Solutions Segment	\$ 9,291	\$ 3,624
Industrial Solutions Segment	602	1,198
Fluid Handling Solutions Segment	2,358	3,381
Corporate and Other ⁽²⁾	(7,361)	4,533
Eliminations	—	(586)
Income from operations	\$ 4,890	\$ 12,150

(2) Includes (loss) gain on divestitures, net of selling costs, corporate compensation, professional services, information technology and other general and administrative corporate expenses. This amount excludes earnout adjustments, which are recorded in the segment in which the adjustment occurs.

Energy Solutions Segment

Our Energy Solutions segment net sales increased \$15.2 million to \$55.2 million in the first quarter of 2019 compared with \$40.0 million in the same period of 2018. Excluding the divested division Zhongli, net sales increased \$16.9 million in the first quarter 2019 from \$38.3 million in the same period of 2018. The increase is due primarily to volume increases for the Company's refinery related products and separation equipment serving the midstream oil & gas markets.

Operating income for the Energy Solutions segment increased \$5.7 million to \$9.3 million in the first quarter of 2019 compared to income of \$3.6 million in the same period of 2018. The increase is primarily attributable to increased sales in the first quarter of 2019.

Industrial Solutions Segment

Our Industrial Solutions segment net sales increased \$0.5 million to \$18.9 million in the first quarter of 2019 compared with \$18.4 million in the first quarter of 2018. The increase is due primarily to volume increases for the Company's modular duct technologies.

Operating income for the segment decreased \$0.6 million to \$0.6 million in the first quarter of 2019 compared with \$1.2 million in the first quarter of 2018. The decrease is primarily attributable to a \$0.3 million decrease in gross profit due to product mix and a \$0.3 million increase in operating expenses.

Fluid Handling Solutions Segment

Our Fluid Handling Solutions segment net sales decreased \$3.6 million to \$12.0 million in the first quarter of 2019 compared with \$15.6 million in the first quarter of 2018. The sales decrease was driven by \$4.8 million of revenue from the 2018 divisions Keystone and Strobic recognized during the first quarter of 2018, which do not recur in the first quarter of 2019. Excluding the divested divisions, segment sales increased \$1.2 million.

Operating income for the segment decreased \$1.0 million to \$2.4 million in the first quarter of 2019 compared with \$3.4 million in the first quarter of 2018. The decrease is attributable to the decrease in sales and operating income of \$1.2 million from the divestitures of Keystone and Strobic. Excluding the divested divisions, segment operating income increased by \$0.2 million.

Corporate and Other Segment

Operating expense for the Corporate and Other segment was \$7.4 million in the first quarter of 2019 compared with operating income of \$4.5 million in the first quarter of 2018. The increase in operating expenses is primarily attributable to the recognition of an \$11.2 million gain on the divestitures of Keystone and Strobic recorded in the first quarter of 2018, which did not recur in 2019.

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. Our customers may have the right to cancel a given order, although historically cancellations have been rare. Our backlog as of March 31, 2019, was \$193.8 million compared with \$182.1 million as of December 31, 2018. Backlog is adjusted on a quarterly basis for adjustments in foreign currency exchange rates. Backlog is not defined by GAAP and our methodology for calculating backlog may not be consistent with methodologies used by other companies. There can be no assurances that backlog will be replicated, increased or translated into higher revenues in the future. The success of our business depends on a multitude of factors related to our backlog and the orders secured during the subsequent periods. Certain contracts are highly dependent on the work of contractors and other subcontractors participating in a project, over which we have no or limited control, and their performance on such project could have an adverse effect on the profitability of our contracts. Delays resulting from these contractors and subcontractors, changes in the scope of the project, weather, and labor availability also can have an effect on a contract's profitability.

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

Our principal sources of liquidity are cash flow from operations and available borrowings under our Credit Facility (as defined below). Our principal uses of cash are operating costs, payment of principal and interest on our outstanding debt, working capital and other corporate requirements.

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, utilizing extended payment terms from material suppliers when possible, 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.

At March 31, 2019, the Company had working capital of \$61.0 million, compared with \$57.0 million at December 31, 2018. The ratio of current assets to current liabilities was 1.59 to 1 on March 31, 2019, as compared with a ratio of 1.55 to 1 at December 31, 2018.

At March 31, 2019 and December 31, 2018, cash and cash equivalents totaled \$28.2 million and \$43.7 million, respectively. As of March 31, 2019 and December 31, 2018, \$25.4 million and \$23.3 million, respectively, of our cash and cash equivalents were held by certain non-U.S. subsidiaries, as well as being denominated in foreign currencies.

Debt consisted of the following at March 31, 2019 and December 31, 2018:

<i>(Table only in thousands)</i>	<u>March 31, 2019</u>	<u>December 31, 2018</u>
Outstanding borrowings under Credit Facility (defined below).		
Term loan balance due upon maturity in September 2020.		
- Term loan	\$ 76,147	\$ 76,147
- U.S. Dollar revolving loans	—	—
- Unamortized debt discount	(1,422)	(1,691)
Total outstanding borrowings under Credit Facility	\$ 74,725	\$ 74,456

Credit Facility

The Company's outstanding borrowings in the United States consist of senior secured term loan, senior secured U.S. dollar revolving loans with sub-facilities for letters of credit and swing-line loans and senior secured multi-currency revolving credit facility for U.S. dollar and specific foreign currency loans (collectively, the "Credit Facility"). As of March 31, 2019 and December 31, 2018, the Company was in compliance with all related financial and other restrictive covenants under the Credit Facility.

See Note 8 to the condensed consolidated financial statements for further information on the Company's debt facilities.

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

<i>(dollars in millions)</i>	<u>March 31, 2019</u>	<u>December 31, 2018</u>
Credit Facility, U.S. Dollar revolving loans	\$ 60.5	\$ 60.5
Draw down	—	—
Letters of credit open	(27.4)	(29.3)
Credit Facility, Multi-currency revolving facilities	19.5	19.5
Total unused credit availability	\$ 52.6	\$ 50.7
Amount available based on borrowing limitations	\$ 52.6	\$ 50.7

Overview of Cash Flows and Liquidity

<i>(dollars in thousands)</i>	<u>For the three months ended March 31,</u>	
	<u>2019</u>	<u>2018</u>
Net cash (used in) provided by operating activities	\$ (13,741)	\$ 3,248
Net cash (used in) provided by investing activities	(423)	30,338
Net cash used in financing activities	(1,816)	(30,599)
Effect of exchange rate changes on cash and cash equivalents	447	376
Net (decrease) increase in cash	\$ (15,533)	\$ 3,363

Operating Activities

For the three-months ended March 31, 2019, \$13.7 million of cash was used in operating activities compared with \$3.2 million provided by operating activities in the prior year period, a \$16.9 million decrease. Net earnings adjusted for non-cash items decreased \$12.8 million primarily due to a gain of \$11.2 million on divestitures and the cash associated with which was recorded in investing activities (both occurred in the first quarter of 2018 but did not recur in 2019) and an increase of \$1.2 million of deferred income tax expense. Cash flow from operating activities in the first quarter 2019 had a negative impact year-over-year primarily due to the increase in accounts receivable as reflected in the Condensed Consolidated Statements of Cash Flows.

Investing Activities

For the three-months ended March 31, 2019, net cash used in investing activities was \$0.4 million compared with net cash provided by investing activities of \$30.3 million in the prior year period. In the first three-months of 2019, cash used in investing activities was primarily the result of cash used for the acquisitions of property and equipment totaling \$0.4 million. In the prior year period, cash provided by investing activities was primarily the result of cash proceeds from divestitures totaling \$30.7 million and cash used for the acquisitions of property and equipment totaling \$0.5 million.

Financing Activities

For the three-months ended March 31, 2019, net cash used in financing activities was \$1.8 million due principally to note payable repayments of \$1.7 million. For the three-months ended March 31, 2018, net cash used in financing activities was \$30.6 million due principally to net term loan repayments of \$28.2 million and \$2.3 million in net revolving credit line repayments term loan repayments.

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, earnout liabilities, 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 the 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 three-month period ended March 31, 2019, other than disclosed in Note 2 to the condensed consolidated financial statements within Item 1 of this quarterly Report on Form 10-Q, 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, 2018.

Forward-Looking Statements

This Quarterly Report on Form 10-Q includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact, including statements regarding industry prospects or future results of operations or financial position made in this Quarterly Report on Form 10-Q are forward-looking. 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, 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, 2018 and include, but are not limited to: our ability to successfully realize the expected benefits of our restructuring program; our ability to successfully integrate acquired businesses and realize the synergies from acquisitions, as well as a number of factors related to our business, including 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; fluctuations in operating results from period to period due to cyclicity or seasonality of the business; 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; 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 acquisitions and our ability to repay or refinance it or incur additional debt in the future; the impact of federal, state or local government regulations; economic and political conditions generally; and the effect of competition in the Industrial Solutions segment, Energy Solutions segment and Fluid Handling Solutions segment industries. 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 the 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, 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 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. However, we do have an interest rate swap in place as of March 31, 2019 to hedge against a portion of our interest rate exposure related to debt indexed to LIBOR market rates. See Note 8 "Senior Debt" to the condensed consolidated financial statements within Item 1 of this Quarterly Report on Form 10-Q, for further information on this interest rate swap.

The carrying value of the Company's long-term debt and current maturities of long-term debt was \$76.1 million at March 31, 2019. Market risk was estimated as the potential decrease (increase) in future earnings and cash flows resulting from hypothetical 10% increase (decrease) in the Company's estimated weighted average borrowing rate at March 31, 2019. Most of the interest on the Company's debt is indexed to either the LIBOR or EURIBOR market rates. The estimated impact of a hypothetical 10% change in the estimated weighted average borrowing rate, excluding the portion of debt which has an interest rate fixed by the interest rate swap described above, at March 31, 2019 is \$0.2 million on an annual basis.

The Company has wholly-owned subsidiaries located in the Netherlands, Canada, the People's Republic of China, Mexico, United Kingdom, Singapore, and Chile. 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.

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 effective as of March 31, 2019. Management believes that the condensed consolidated financial statements included in this report fairly present in all material respects the Company's financial condition, results of operations and cash flows for each of the periods presented in this report.

Changes in Internal Control Over Financial Reporting

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 fiscal quarter ended March 31, 2019, 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

Information with respect to legal proceedings can be found in Note 15 “Commitments and Contingencies – Legal Matters” to the Condensed Consolidated Financial Statements contained in Part I, Item 1 of this Quarterly Report on Form 10-Q.

ITEM 1A. RISK FACTORS

There have been no material changes in the Company’s risk factors that we disclosed in “Part I – Item 1A. Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2018.

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

None.

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 XBRL Instance Document
- 101.SCH XBRL Taxonomy Extension Schema Document
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

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/ Matthew Eckl
Matthew Eckl
Chief Financial Officer

Date: May 8, 2019

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

I, Dennis Sadlowski, 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/ Dennis Sadlowski

Dennis Sadlowski
Chief Executive Officer

Date: May 8, 2019

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

I, Matthew Eckl, 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/ Matthew Eckl

Matthew Eckl
Chief Financial Officer

Date: May 8, 2019

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 three-month period ended March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Dennis Sadlowski, 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 his 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/ Dennis Sadlowski

Dennis Sadlowski
Chief Executive Officer

Date: May 8, 2019

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 three-month period ended March 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Matthew Eckl, 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 his 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/ Matthew Eckl

Matthew Eckl
Chief Financial Officer

Date: May 8, 2019