



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

DIVISION OF
CORPORATION FINANCE

July 6, 2015

Via E-mail

Jeffrey Lang
Chief Executive Officer
CECO Environmental Corp.
4625 Red Bank Road, Suite 200
Cincinnati, OH 45227

**Re: CECO Environmental Corp.
Registration Statement on Form S-4
Form 10-K for the Year Ended December 31, 2014
Filed June 9, 2015
File No. 333-204816**

Dear Mr. Lang:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Please supplementally provide us with copies of all board books and other materials prepared by Jefferies and Stifel that were shared with the CECO and PMFG boards and their representatives.

Cover Page

2. Please disclose the estimated value of the PMFG restricted stock units, options, and restricted stock that will be settled in cash from the \$66.2 million consideration to be paid in cash.

Summary, page 23

3. Please avoid repeating information in the Q&As and the Summary. These sections should fulfill distinct purposes. Currently, we note disclosure on the following items in both sections:
 - details about the special meetings;
 - what PMFG stockholders will receive in the transaction; and
 - tax consequences of the transaction.
4. Please add a section describing the additional indebtedness that will result from this transaction, including the amount of PMFG debt that will be assumed, the total outstanding indebtedness of the combined company following the merger, and the total amount of financing CECO needs to complete the transaction.

Opinion of CECO's Financial Advisor, page 28

5. Please disclose here that CECO will pay Jeffries \$3.25 million, including \$2.75 million payable contingent upon the closing of the first merger.

Interests of PMFG Directors and Executive Officers in the Mergers, page 30

6. Please quantify the aggregate value of the benefits that the PMFG directors and executive officers will receive as a result of their interests in the merger. Please also discuss financial interests that CECO's directors and executive officers will have in the merger, if any. We note the penultimate bullet point on page 36.

Risk Factors, page 38

The Mergers may not be accretive..., page 45

7. Please disclose the anticipated amount of accretion per share.

The Mergers, page 81

Background of the Mergers, page 81

8. Please revise your disclosure throughout this section to include a materially complete description of the discussions and/or negotiations relating to the merger consideration, particularly the structure of the consideration. For example, please elaborate on the following:
 - why the percentage of consideration payable in cash decreased from a high of 80% to 45%;
 - why CECO insisted that outstanding PMFG equity awards be paid in cash;
 - why CECO originally proposed an asymmetrical collar that focused more on protecting the upside potential of its stock; and

- why CECO was consistently willing to pay a high premium, even in an “underperforming market.”
9. Please briefly discuss the strategic alternatives, other than “a broader sale process” that were discussed during the PMFG board meetings on March 10, 2014, March 26, 2014, and January 16, 2015. We note your disclosure on page 104 that the PMFG board considered its standalone prospects.
 10. Please elaborate on PMFG’s changes in personnel and operational initiatives, as well as recent financial results, that contributed to CECO management’s preference to “devote its efforts to pursuing a strategic transaction with PMFG” in early December 2014.
 11. Please identify the synergies and performance metrics that the CECO board discussed on April 1, 2015.

CECO Board’s Reasons for the Mergers, page 92

12. Please elaborate, either here or in the Background section, on the items that supported and detracted from the CECO board’s recommendation of the mergers. The significance of many of these items is unclear without additional context. Please review the disclosure throughout this section to provide the CECO board’s analysis of each factor and clearly explain how each particular factor is positive or negative, as the current disclosure is often conclusive in nature or unclear. For example, and not by way of limitation, it is unclear:
 - what about PMFG’s financial condition, competitive position, and future prospects supported the board’s decision to recommend the transaction;
 - what were CECO’s standalone prospects, and how these compared to the transaction;
 - what about the nature of the industries that CECO and PMFG operate supported the board’s decision; and
 - how the mergers will diversify CECO’s revenue across new business lines and geographies.
13. Please discuss the board’s consideration of the merger consideration, including the composition and premium paid. Please address how it determined that such consideration was advisable, fair to, and in the best interests of CECO and its stockholders.

Opinion of CECO’s Financial Advisor, page 94

14. We note that Jeffries and Stiffel each performed comparable companies analyses for PMFG and CECO, as well as precedent transactions analyses. Please revise the disclosure in this section to provide the following:
 - disclose whether any companies meeting this criteria were excluded from the analysis and the reasons for doing so; and
 - disclose the size of each transaction, or the range of each transaction in the precedent transactions analysis.

Certain PMFG and CECO Financial Projections, page 119

15. Please confirm that you have disclosed all of the material financial projections exchanged between PMFG and CECO under this section, and revise the proxy statement/prospectus, if necessary, to disclose all material financial projections.

Summary of Certain Financial Projections Prepared by CECO and Provided to PMFG, page 122

16. In the Background section, please disclose when CECO provided unaudited financial projections regarding its future operations for calendar years 2015 through 2019 to PMFG.

Legal Proceedings Related to the Mergers, page 140

17. Please provide any material updates regarding the pending class action suits that are challenging the merger.

The Merger Agreement, page 143

18. We note that the representations and warranties of CECO and PMFG are qualified by disclosure schedules. Please provide us supplementally with a list that briefly identifies the contents of the disclosure schedules. In addition, please file an agreement to furnish the staff with a copy of any omitted schedule upon request. The agreement to furnish the staff with copies of omitted schedules may be included in the exhibit index to the registration statement.

Adjusted Unaudited PMFG Information..., page 54

19. Please revise your explanation of footnotes (4) and (6) to specifically address how you derived your basic and diluted income per share amounts as well as the weighted average number of common shares outstanding for the six months ended June 28, 2014 and the twelve months ended December 27, 2014.

Unaudited Pro Forma Condensed Combined Financial Statements, page 173

Unaudited Pro Forma Condensed Combined Statement of Income, page 176

20. Please revise your disclosures to provide a reconciliation of your historical basic and diluted net income (loss) per share to your pro forma basic and diluted net income (loss) per share for the year ended December 31, 2014 and for the period ended March 31, 2015.

21. In footnote (2) on page 176, you indicate that the share number was calculated based on pro forma equity of \$80,850 divided by the 15 day average share price of CECO common stock at May 28, 2015. Please revise your footnote to provide a more robust discussion of how these share amounts were calculated including but not limited to disclosing the actual 15-day average share price and disclosing the exchange ratio used to determine the shares issued as merger consideration for the purchase of PMFG. Please also tell us why you used the 15-day average share price of CECO common stock at May 28, 2015 for your calculation.
22. With regards to notes H and O on page 181, please explain how you determined the tax rate used to calculate your adjustments.

Notes To Unaudited Pro Forma Condensed Combined Financial Information, page 178

2. Assets Acquired and Liabilities Assumed, page 179

23. We note that you have subtracted historical noncontrolling interest from your book value of net assets acquired to determine your adjusted book value of net tangible assets acquired. Please tell us what consideration you gave to measuring the non-controlling interest in PMFG at its acquisition date fair value in accordance with ASC 805-20-30-1.

Exhibits 99.3 and 99.4

24. Please ensure that the proxy card is marked is “preliminary” until the time that you file a definitive proxy statement. See Rule 14a-6(b).

Exhibit 99.7

25. We note the statement “...nor is the Opinion to be filed with, included in or referred to, in whole or in part in any registration statement (including any subsequent amendments to the Registration Statement), proxy statement or any other document, except in accordance with our prior written consent.” Please provide the basis for the consent not applying to amendments or confirm for us that a consent will be filed with each amendment.

CECO Environmental Corp. Form 10-K for the Year Ended December 31, 2014

Management’s Discussion and Analysis of Financial Condition and Results of Operations, page 32

26. You indicate on page F-18 that your analysis of qualitative factors for four reporting units with total goodwill of \$105.4 million as of December 31, 2014 led to the conclusion that it was not more likely than not that the fair value for these reporting units exceeded the carrying value. In addition, you indicated that the aggregate excess of fair value of the reporting units over their carrying value was not significant. In order for investors to

more fully understand your assessment and to better assess the likelihood of impairment charges in the future, please tell us and revise your critical accounting policies on page 50 or your footnote on page F-18 to address the following:

- Quantify and discuss the most significant assumptions you used to estimate the fair values of those reporting units where aggregate excess of fair value over carrying value was not significant;
- Provide sensitivity analyses that indicate the potential impact of changes in significant assumptions; and
- Quantify and discuss the nature of any other material intangible assets or long-lived assets related to those reporting units that may also be at risk for impairment. Please also provide sensitivity analyses, if applicable.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Ernest Greene, Staff Accountant at 202-551-3733 or Lisa Etheredge, Staff Accountant, at 202-551-3424 if you have questions regarding comments on the financial statements and related matters. Please contact David Korvin, Staff Attorney at 202-551-3236 or Craig Slivka, Special Counsel at 202-551-3729 with any other questions.

Jeffrey Lang
CECO Environmental Corp.
July 6, 2015
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Sincerely,

/s/ Craig Slivka, for

Pamela Long
Assistant Director

cc: Via E-mail
Toby Merchant, Esq.
Squire Patton Boggs (US) LLP