



December 10, 2010

Securities and Exchange Commission  
450 Fifth Street, N.W.  
Washington, D.C. 20549  
Attention: Jay Ingram, Legal Branch Chief

Re: *Perma-Fix Environmental Services, Inc.; Form 10-K for Fiscal Year Ended December 31, 2009, filed March 12, 2010; SEC File No. 001-11596*

Ladies and Gentlemen:

Perma-Fix Environmental Services, Inc. (the "Company") hereby responds to the comments of the Staff of the Securities and Exchange Commission (the "SEC") on the Company's Form 10-K for fiscal year ended December 31, 2009 (the "2009 Form 10-K"). The Staff's comments were delivered to Ben Naccarato, the Company's Vice President and Chief Financial Officer ("CFO"), by letter dated November 29, 2010 (the "Comment Letter"), and address the Company's response letter, dated November 16, 2010 (the "Initial Response"). Based on our previous correspondence, we understand that the responses below are not required to be included in an amendment to the 2009 Form 10-K.

Staff comments and the Company's responses are set forth below, as designated in the Comment Letter. Capitalized terms have the meanings assigned to them in the 2009 Form 10-K.

**Item 11. Executive Compensation, page 116**  
**Compensation Discussion and Analysis, page 116**  
**Executive Management Incentive Plan, page 121**

1. We note your response to comment four in our letter dated October 19, 2010, and have the following comments:

- *Performance relative to your budgeted revenue and net income targets appears to play an important role in determining the amounts earned by your named executive officers in the form of incentive compensation. As such, it appears that these targets comprise material factors underlying the policies and decisions reflected in the data presented in the compensation tables. Therefore, please provide us with a more detailed analysis supporting your conclusion that these company-wide targets do not constitute material information necessary to an investor's understanding of how your named executive officers are compensated.*
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**Response:** We understand the Staff's assessment that our executives' performance relative to our budgeted revenue and net income targets plays an important role in determining the amounts earned by our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), who are the two named executive officers that currently participate in our Management Incentive Plans (each, an "MIP"). Although we do not believe that the internal budgeted revenue and net income amounts, which are determined at the beginning of each year based upon numerous assumptions, are material to investors, in order to resolve the Staff's concerns, we will include such target amounts in future filings, assuming such budgeted amounts are used as targets or benchmarks. However, if we determine that disclosure of such information (or other compensation metrics that we may or may incorporate into our executive compensation plans in the future) would result in competitive harm to the Company, we will exclude such information in accordance with Instruction 4 to Item 402(b) of Regulation S-K.

Based on the foregoing, if the bonus compensation paid to our named executive officers are based on the same criteria as set forth in our 2009 MIP programs, the disclosure on page 121 of the 2009 Form 10-K would be updated in future filings in the manner described in our response to the Staff's Comment No. 4, as set forth in our Initial Response, with the inclusion of the following statement in the appropriate location within such disclosure: "For purposes of each 2009 MIP, the target revenue for was \$105,187,000, and the target net income was \$7,671,000. Based on our actual results during 2009, and the application of the various components of each MIP described above, the bonus compensation earned under the 2009 MIP for our CEO and CFO, as a percentage of base salary, was 53% and 28%, respectively.

- *We note that your Board reserves the right to modify performance targets or make adjustments to how performance targets are calculated, depending on the circumstances. Please disclose whether your Board in fact exercised its discretion in this regard and, if so, please explain.*

**Response:** Our Board has not exercised its right to modify the performance targets under the MIPs or made adjustments to how such performance targets are calculated.

- *With respect to your chief financial officer's incentive compensation, it unclear how achievement at the maximum level of performance relative to some of his targets translates into more than 160% accomplishment of the relevant "performance target threshold." For example, we note from the footnotes to the chief financial officer's performance table that the maximum performance achievable relative to his accounting objective, accounts receivable objective, SOX Incentive, and Accounting Centralization objective ranges from zero to 15%. Please advise us or revise your disclosure accordingly.*

**Response:** The CFO's total incentive compensation under the MIP (other than the Administrative Expense and Unbilled Receivables components) is calculated based on our actual net income as a percentage of the budgeted net income (the "Net Income Percentage"). For example, if the Net Income Percentage is 125%, then the Accounting, Accounts Receivable, SOX Compliance, and Centralization & IT Objectives components (together, the "Non-Net Income Components") are calculated as the applicable percentage of the amounts set forth in the column under the Performance Target Threshold "121-130%." Based on this example, and assuming that we incurred no SOX Deficiencies, the CFO's incentive compensation with respect to SOX Compliance would be \$6,501, calculated as the product of \$6,501 times 100%. Similarly, if we incurred one SOX Deficiency, such incentive compensation would be \$5,850.90, calculated as the product of \$6,501 times 90%. Accordingly, if our actual net income, as a percentage of the budgeted net income, exceeds the 160% "Performance Target Threshold," then our CFO will be entitled to receive bonus compensation with respect to each of the Non-Net Income Components based on the amounts set forth under the column titled "161%+" of table under Performance Target Thresholds.

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In future filings, we will revise the disclosure of the calculations under our CFO's MIP to clarify the application of the Performance Target Thresholds.

In connection with responding to your comments, the Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the SEC from taking any action with respect to the filings; and
- the Company may not assert staff comments as a defense in any proceeding initiated by the SEC or any person under the federal securities laws of the United States.

We appreciate your attention to this matter. If you have any questions or comments, please do not hesitate to contact our counsel, Irwin H. Steinhorn, Esquire, of the firm of Conner & Winters, LLP, 1700 One Leadership Square, 211 North Robinson Avenue, Oklahoma City, Oklahoma 73102, at (405) 272-5711, or the undersigned at (770) 587-9898, ext. 112.

Sincerely,  
/s/ Ben Naccarato

Ben Naccarato  
Vice President  
Chief Financial Officer

cc: Dr. Louis F. Centofanti  
Irwin H. Steinhorn, Esq.  
Mr. Hagen Ganem, Staff Attorney

