

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549-4631

November 29, 2010

Ben Naccarato Vice President and Chief Financial Officer Perma-Fix Environmental Services, Inc. 8302 Dunwoody Place, Suite 250 Atlanta, GA 30350

> RE: Perma-Fix Environmental Services, Inc. Form 10-K for Fiscal Year Ended December 31, 2009 Filed March 12, 2010 File No. 001-11596

Dear Mr. Naccarato:

We have reviewed your filing and have the following additional comments.

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.
 - 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.

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• 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.

Please contact Hagen Ganem, Staff Attorney, at (202) 551-3330 or me at (202) 551-3397 if you have any questions.

Sincerely,

Jay Ingram Legal Branch Chief