



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

July 21, 2010

Mr. J. Michael Anderson  
Chief Financial Officer  
Exterran Holdings, Inc.  
16666 Northchase Drive  
Houston, TX 77060

**RE: Exterran Holdings, Inc.**  
**Form 10-K for the Fiscal Year Ended December 31, 2009**  
**Filed February 25, 2010**  
**Definitive Proxy Statement on Schedule 14A**  
**Filed March 29, 2010**  
**File No. 001-33666**

Dear Mr. Anderson:

We have reviewed your filing 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 within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. 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 filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2009

Item 15. Exhibits, Financial Statement Schedules, page 64

3. Exhibits, page 64

1. Please tell us what consideration you have given to filing the following agreements as exhibits.
  - The agreements underlying the Partnership's revolving credit facility, term loan, and 2009 ABS Facility referenced on page 50.

- The written plans setting forth the terms of your annual performance-based incentive compensation programs discussed on page 24 of your annual proxy statement.
- The Exterran Partners, L.P. Long-Term Incentive Plan (“Partnership Plan”) discussed on page 29 of your annual proxy statement.

With respect to the incentive plans, in your response please specifically address Item 601(b)(10)(iii)(A), which provides in relevant part that “[a]ny management contract or any compensatory plan, contract or arrangement, including but not limited to plans relating to . . . deferred compensation or bonus, incentive or profit sharing (or if not set forth in any formal document, a written description thereof) in which any . . . of the named executive officers of the registrant . . . participates shall be deemed material and shall be filed.”

Definitive Proxy Statement on Schedule 14A

Compensation Discussion and Analysis, page 18

Compensation Philosophy and Objectives, page 19

2. We note that you target your cash compensation at the 50<sup>th</sup> percentile and your equity compensation at the 50<sup>th</sup> to 70<sup>th</sup> percentile of amounts paid by your peer group of companies to their executives. In future filings, please disclose where actual cash and equity compensation amounts earned by each named executive officer fell relative to the applicable benchmark and, to the extent amounts fell significantly above or below targeted amounts, please discuss the reasons for such variance.

Elements of Compensation, page 22

Annual Performance-Based Incentive Compensation, page 24

3. We note that your compensation committee designs its annual incentive program, in part, on each named executive officer’s contribution to company performance. In future filings, please describe in more detail the elements of individual performance that your compensation committee takes into account when designing compensation programs and determining the payouts to be made to each named executive officer thereunder. To the extent that considerations vary significantly among the named executive officers, describe the elements of individual performance separately with respect to each.

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Certain Relationships and Related Transactions, page 48

Related-Party Transaction Policy, page 48

4. In future filings, please describe the standards applied by your audit committee in determining whether related party transactions should be approved, ratified, or rejected. See Item 404(b)(1)(ii) of Regulation S-K.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

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

You may contact Hagen Ganem, Staff Attorney, at (202) 551-3330 or, in his absence, Dietrich King, Staff Attorney, at (202) 551-3338 if you have any questions.

Sincerely,

Pamela A. Long  
Assistant Director