



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

Mail Stop 7010

May 20, 2009

via U.S. mail and facsimile

Stephen A. Romano, Chief Executive Officer
American Ecology Corporation
300 E. Mallard Dr., Suite 300
Boise, Idaho 83706

**RE: American Ecology Corporation
Form 10-K for the Fiscal Year Ended December 31, 2008
Filed February 25, 2009
Definitive Proxy Statement
Filed April 1, 2009
File No. 000-11688**

Dear Mr. Romano:

We have reviewed the above referenced filings and have the following comments. Where indicated, we think you should revise your disclosures in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended December 31, 2008

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 21

Liquidity and Capital Resources, page 29

1. We note that Honeywell accounted for 43%, 41% and 38% of revenue for the years ended December 31, 2008, 2007 and 2006, respectively. We further note the contract with Honeywell expires in 2009. Given the materiality of this customer to your operations and liquidity, in future filings please discuss and quantify the impact the expiration of this contract will have to your operations and liquidity. Your discussion should address your ability to fund operations and satisfy debt obligations in the absence of cash flows from Honeywell. Refer to Item 303 of Regulation S-K and Sections 501.03, 501.04, 501.12 and 501.13 of the Financial Reporting Codification for guidance. Please also discuss whether you have been able to replace this significant contract. In this regard, we note your disclosure on page 13 that many large projects are identified years in advance.

Note 2. Summary of Significant Accounting Policies, page 41

Revenue Recognition, page 42

2. We note that you offer bundled service contracts for the transportation and the treatment and disposal of hazardous waste, which includes your contract with Honeywell. In future filings, please revise your disclosures to address your accounting for these contracts in accordance with EITF 00-21. Refer to paragraph 18 of EITF 00-21 for guidance. Please provide us with the disclosure you intend to include in future filings. If you do not believe these contracts are within the scope of EITF 00-21, please provide us with an explanation as to how you arrived at this conclusion.

Note 15. Operating Segments, page 54

3. We note from your disclosures throughout your filing that you earn revenues from the treatment and disposal of waste at your four disposal facilities and also from transporting customer waste to your disposal facilities. In future filings, please disclose revenues recognized from external customers for each of these services for each period presented. Refer to paragraph 37 of SFAS 131.

Item 15. Exhibits and Financial Statement Schedules, page 60

Exhibits 31.1 and 31.2

4. We note that you added the word “annual” before the word “report” in paragraph 2 and that you deleted the word “the” before the phrase “registrant’s board of directors” from paragraph 5. In future filings, please provide the certifications required by Rule 13a-14(a) in the exact form provided under Item 601(b)(31) of Regulation S-K.

Definitive Proxy Statement on Schedule 14A

Compensation Discussion and Analysis, page 11

Elements of Compensation, page 14

Annual Short-Term Incentives, page 16

5. We note that whether each of your named executive officers receives his full “Cash Incentive target” is “50% contingent on evaluation of such officer’s contribution to achieving Company priorities, as well as a subjective evaluation of the quality of the individual’s performance in carrying out assigned responsibilities.” In future filings, please describe the specific company priorities and the elements of individual performance considered in conducting your subjective evaluation of each NEO. See Item 402(b)(2)(vii) of Regulation S-K.
6. We note that you exceeded target operating income for 2008, and, thus, your performance-based payments under the “2008 MIP” were higher than target amounts. In future filings, please clarify how actual payout percentages beyond target amounts were determined. We note that you provided this information with respect to your “2009 MIP.”
7. We note that, in addition to 2008 MIP compensation, Mr. Welling received quarterly payments under the 2004 Sales Incentive Plan based on a percentage of treatment and disposal revenue generated at your operating facilities (after certain exclusions). In future filings, please disclose the actual percentage of revenue that Mr. Welling earns under the 2004 Sales Incentive Plan, and discuss how this percentage was determined. See Item 402(b)(1)(v) of Regulation S-K.

Compensation Committee Report, page 19

8. Please confirm, and in future filings disclose, that your compensation committee reviewed and discussed your compensation discussion and analysis with management and that, based on this review and discussion, your compensation committee recommended to your board of directors that it be included in your Form 10-K and incorporated filings. See Item 407(e)(5)(i) of Regulation S-K.

Section 16(a) Beneficial Ownership Reporting Compliance, page 36

9. We note that one of your directors failed to timely file a change in beneficial ownership form. In future filings in which you provide Item 405 disclosure, please identify the number of transactions, in addition to the number of reports that were not reported on a timely basis. See Item 405(a)(2) of Regulation S-K. Please also ensure that you accurately check (or leave unchecked) the related box on your Form 10-K cover page.

* * * *

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested supplemental information. Detailed response letters greatly facilitate our review. Please file your response letter on EDGAR. Please understand that we may have additional comments after reviewing responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors 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 connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in their filings;
- 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.

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In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Tracey McKoy, Staff Accountant, at (202) 551-3772 or, in her absence Tracey Houser at (202) 551-3736 or the undersigned Accounting Branch Chief at (202) 551-3355 if you have questions regarding comments on the financial statements and related matters. Please contact Hagen Ganem with legal related questions at (202) 551-3330.

Sincerely,

Terence O'Brien
Accounting Branch Chief