

Mail Stop 3561

August 21, 2007

*By U.S. Mail and facsimile to (973) 244-5540*

Anthony J. Orlando  
President and Chief Executive Officer  
Covanta Holding Corporation  
40 Lane Road  
Fairfield, NJ 07004

**Re: Covanta Holding Corporation  
Definitive 14A  
Filed April 25, 2007  
File No. 1-06732**

Dear Mr. Orlando:

We have limited our review of your definitive proxy statement to your executive compensation and other related disclosure and have the following comments. Our review of your filing is part of the Division's focused review of executive compensation disclosure.

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 filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call me at the telephone number listed at the end of this letter.

In some comments we have asked you to provide us with additional information so we may better understand your disclosure. Please do so within the time frame set forth below. You should comply with the remaining comments in all future filings, as applicable. Please confirm in writing that you will do so and also explain to us how you intend to comply. Please understand that after our review of all of your responses, we may raise additional comments.

If you disagree with any of these comments, 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.

Compensation Discussion and Analysis, page 18

1. Throughout this section, you indicate that you consider a named executive officer's individual performance in setting compensation. Please discuss how you structure and implement specific forms of compensation to reflect the named executive officer's individual performance or contribution and describe the elements of individual performance or contribution that you have taken into consideration. See Item 402(b)(2)(vii) of Regulation S-K.

Competitiveness and Benchmarking, page 19

2. To the extent that you engage in benchmarking your performance against utility companies, independent energy companies and water disposal companies discussed in this section, the Dow Jones "DJ Waste & Disposal Services Index" or any other group of companies, please identify those companies and the components of the index. See Item 402(b)(2)(xiv) of Regulation S-K. When you indicate that you target compensation at the market median, it is unclear as to which group of companies you have chosen to benchmark compensation.

The Annual Compensation Process, page 20

3. Please provide further analysis about how you determine the amount and, where applicable, the formula for each element to pay. See Item 402(b)(1)(v) of Regulation S-K. You indicate that the compensation committee reviews tally sheets that include various components of compensation. Please analyze how the compensation committee uses the tally sheet information to determine the amount of compensation to be paid to the named executive officers and whether the compensation committee has increased or decreased compensation based on its review of the components included in the tally sheets. Also explain why a greater percentage the chief executive officer's compensation is performance-based and why certain named executive officers receive performance-based awards that represent a higher percentage of their base salary.

Annual Incentive Cash Awards, page 22

4. You have not disclosed the adjusted EBITDA, free cash flow and business area performance measures for 2006 or 2007. Please disclose or, to the extent you believe disclosure of these targets is not required because it would result in competitive harm, provide us on a supplemental basis a detailed explanation under Instruction 4 to Item 402(b) of Regulation S-K for this conclusion. If disclosure of the performance-related factors would cause competitive harm, please discuss how difficult it will be for the named executive officer or how likely it will be for you to achieve the target levels or other factors. Please see Instruction 4 to Item 402(b) of Regulation S-K.

5. With respect to the compensation plans, please discuss whether the compensation committee has discretion or has exercised discretion to increase or decrease the size of any award or payout. See Item 402(b)(2)(vi) of Regulation S-K.

CEO Compensation, page 25

6. We refer you to Securities Act Release 8732A, Section II.B.1. As noted in that section, the compensation discussion and analysis should be sufficiently precise to identify material differences in compensation policies for individual named executive officers. Mr. Orlando's salary, non-equity incentive compensation and equity awards were significantly higher than amounts given to other named executive officers other than the amount of options granted to Mr. Pytosh. Please supplement the disclosure to explain the reasons for the differences in the amounts of compensation awarded to the named executive officers.
7. We refer you to Item 402(b)(1)(vi) of Regulation S-K. Please discuss how each compensation element and your decisions regarding that element fit into your overall compensation objectives and affect decisions regarding other elements. During 2006 a significant amount of Mr. Orlando's equity holdings vested. To the extent material, discuss whether the compensation committee considered compensation or amounts realizable from prior compensation in setting other elements of compensation, such as gains from prior stock and option awards. See Item 402(b)(2)(x) of Regulation S-K.

Pension Benefits 2006, page 34

8. Please define "RP-2000 Mortality" for purposes of the pension plan.

Employment Arrangements and Potential Payments ..., page 34

9. In the compensation discussion and analysis, please discuss how these arrangements fit into your overall compensation objectives and affect the decisions you made regarding other compensation elements. See Items 402(b)(1)(v) and 402(j)(3) of Regulation S-K. Also, provide analysis explaining why you structured the terms and payout levels of these arrangements as you have.
10. You have not defined key terms such as "cause," "good reason" or "change of control" as defined under the agreements you have described. Please define the terms throughout this section.

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Please respond to our comments by September 21, 2007, or tell us by that time when you will provide us with a response.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

When you respond 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 the filing;
- staff comments or changes to disclosure in response to 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.

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 connection with our review of your filing or in response to comments.

Please contact me at (202) 551-3238 with any questions.

Sincerely,

Ellie Quarles  
Special Counsel