

August 21, 2007

Mail Stop 7010

By U.S. Mail and facsimile to (314)342-3419

Gregory H. Boyce
President and Chief Executive Officer
Peabody Energy Corporation
701 Market Street
St. Louis, Missouri 63101-1826

**Re: Peabody Energy Corporation
Definitive Proxy Statement on Schedule 14A
Filed March 26, 2007
File No. 001-016463**

Dear Mr. Boyce:

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 of Corporation Finance'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.

Role of Compensation Committee, page 20

1. We direct you to Items 402(b)(1)(v) and 407(e)(3) of Regulation S-K. Please revise your discussion to clarify how the type and level of compensation awarded to your CEO is determined. For example, explain how actual compensation paid to the CEO in fiscal 2006 was determined by revising your disclosure to identify the specific “corporate goals and objectives relevant to...compensation” that were established for the CEO for 2006.

Role of Compensation Consultant, page 21

2. You disclose that the company engaged Towers Perrin through early 2006 and then subsequently engaged Mercer Human Resource Consulting. Consistent with the requirements of Item 407(e)(3)(iii) of Regulation S-K, revise to provide greater specificity of the respective scope of duties and role of each outside consultant in determining the compensation awarded during fiscal 2006.

Review of External Data, page 21

3. Clarify for each element of compensation, the group against which you benchmark compensation and identify the reasons for choosing a particular group when benchmarking against a particular element of compensation. In this regard, please indicate whether the “industry comparator group” referenced in your discussion of performance units is the same group as the mining comparator group referenced on page 21. In addition, clarify the following:
 - all international companies, versus a representative sample list, against which the company benchmarks compensation;
 - which elements of the compensation data from international companies are examined; and,
 - whether in a particular year, the compensation data of international companies was actually considered by the committee and material in understanding the compensation decisions made by the committee. Please see generally Item 402(b)(2)(xiv) of Regulation S-K.

Employment Agreements, page 29

4. Although you state why the post-termination benefits reflected in the employment agreements were negotiated, your discussion should why the actual amounts and terms were established. For example, explain why the CEO’s agreement is structured in the manner described on page 29.

Annual Incentive Pay, page 23

5. You only disclose the category of financial metrics used by the board and do not specify actual targets established during fiscal 2006. You should disclose the financial performance targets established during 2006. See Item 402(b)(2)(v)-(vi) of Regulation S-K. To the extent you believe that disclosure of the targets would result in competitive harm such that the information could be excluded under Instruction 4 to Item 402(b) of Regulation S-K, please provide on a supplemental basis a detailed explanation supporting your conclusion. To the extent disclosure of the quantitative or qualitative performance-related factors would cause competitive harm, you are required to discuss how difficult it will be for you to achieve the target levels or other factors. Please see Instruction 4 to Item 402(b) of Regulation.
6. Please identify the specific aspects of individual performance that helped determine awards to the each named executive officer.

Performance Units, page 24

7. We direct you to Item 402(b)(1)(v) of Regulation S-K. To understand the total amount of compensation paid or payable in the future, your discussion of the payout formula for performance units should be revised to identify the three year adjusted EBITDA Return on Invested Capital threshold, target and maximum goals established in prior years and with respect to the 2006 performance units. Please see our prior comment regarding identification of targets. To the extent you believe that disclosure of the information would result in competitive harm such that the information could be excluded under Instruction 4 to Item 402(b) of Regulation S-K, please provide on a supplemental basis a detailed explanation supporting your conclusion. Also, consider supplementing the tabular disclosure on page 39 to identify the EBITDA targets that were met for the 2004-2006 performance period and how the formula you describe applies in practice.

Outstanding Equity Awards at 2006 Fiscal Year End, page 35

8. Consistent with Instruction 2 to Item 402(f)(2) of Regulation S-K, please revise your footnote disclosure to specify the vesting schedules of the equity incentive plan and stock awards listed in the table.

Potential Payments Upon Termination Or Change In Control, page 41

9. Please revise your discussion and provide in this section, a complete and concise description of the terms of the employment agreement entered into with Mr. Englehardt and the actual compensation awarded to Mr. Englehardt during 2006. For example, please include in your discussion analysis of why the board decided

to provide compensation to Mr. Englehardt in the manner (type and level of compensation) reflected in the employment agreement and for the term specified.

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) 551-3757 with any questions.

Sincerely,

Melissa Campbell Duru
Attorney Advisor