



DIVISION OF
CORPORATION FINANCE

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

October 1, 2010

Via U.S. Mail and Facsimile

Mr. Robert J. Zatta
Rockwood Holdings, Inc.
100 Overlook Center
Princeton, NJ 08540

**Re: Rockwood Holdings, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2009
Filed February 26, 2010**

**Definitive Proxy Statement on Schedule 14A
Filed March 26, 2010**

Dear Mr. Zatta:

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 Year Ended December 31, 2009

Management's Discussion and Analysis, page 39

Year ended December 31, 2009 compared to year ended December 31, 2008, page 47

1. We note that your disclosure in this section often provides the dollar amount of the increase or decrease in a line item from the prior year without providing either the dollar amount of the same line item in the previous year or the percentage of the increase or decrease from year to year. Without presenting this information as part of your analysis, it is difficult for investors to determine the significance of the dollar amount of the increase or decrease in the line item. In future filings, please include this information as part of your narrative discussion.

Controls and Procedures, page 115

2. It appears that you have combined your discussion of internal controls and disclosure controls and procedures in such a way that the disclosure is not clear. For example, on page 115, you state that your CEO and CFO concluded that your *disclosure controls and procedures* were effective, and that in connection with this evaluation, management did not identify any changes in your *internal control over financial reporting* that materially affected, or is reasonably likely to materially affect, your internal controls over financial reporting during the fourth quarter of 2009. Further, we note that you have defined “disclosure controls and procedures” within your Management’s Report on Internal Control Over Financial Reporting. Similarly, immediately following the definition of *disclosure controls and procedures*, you state that all *internal control systems*, no matter how well designed, have inherent limitations. In future filings, please clearly present your management’s evaluation of, and conclusion regarding, the effectiveness of your disclosure controls and procedures separately from your discussion of management’s evaluation of, and conclusion regarding, the effectiveness of your internal control over financial reporting. In addition, to the extent your statement that “even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation” addresses your disclosure controls and procedures, please state clearly, if true, that your disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives and that your disclosure controls and procedures are effective at that reasonable assurance level.
3. We note your disclosure that your “internal control system was designed to provide reasonable assurance to the Company’s management and board of directors regarding the preparation and fair presentation of published financial statements.” In future filings, when defining internal controls over financial reporting, please either use the complete definition found in Rules 13a-15(f) or 15d-15(f) under the Securities Exchange Act of 1934, or simply state the effectiveness conclusion without definition.

Exhibits

4. We note that you incorporate certain credit agreements, filed as Exhibits 10.1, 10.52 and 10.53, by reference to previously filed Exchange Act reports. However, it does not appear that you filed all the exhibits and schedules to these agreements when you initially filed them. If these exhibits and schedules have been filed previously, please advise us as to where they are located. Otherwise, in your next Exchange Act filing, please file complete copies of the credit agreements, including all exhibits and schedules. Refer to Rule 601(b)(10) of Regulation S-K. Please note that Item 601(b)(2) of Regulation S-K provides a carve-out for schedules or attachments that are not material to an investment decision, but Item 601(b)(10) does not include a similar provision.

Definitive Proxy Statement on Schedule 14A

Compensation Discussion & Analysis, page 21

Long-Term Equity Compensation, page 28

5. We note your disclosure on page 29 disclosing the number of performance-based restricted stock units granted in December 2008 that vest as a result of achievement of the 2009 performance target. While you disclose the target Adjusted EBITDA and actual Adjusted EBITDA, it is unclear precisely how you calculated the actual award based on the results you achieved. Supplementally, please show us how these awards were calculated and clarify this information in future filings, as applicable

Grants of Plan-Based Awards in 2009, page 38

6. Please supplementally advise as to why you have not included any disclosure under the Threshold column for “Estimated Future Payouts Under Non-Equity Incentive Plan Awards” and “Estimated Future Payouts Under Equity Incentive Play Awards.”

Review and Approval of Transactions with Related Persons, page 64

7. When describing your policies and procedures for the review, approval, or ratification of any transaction required to be reported under Item 404(a) of Regulation S-K in future filings, please disclose the standards to be applied pursuant to such policies and procedures. Please refer to Item 404(b)(1)(ii) of Regulation S-K.

Form 10-Q for the Period Ended March 31, 2010

Form 10-Q for the Period Ended June 30, 2010

8. To the extent the comments above are applicable to your Form 10-Q, please address them in your next Form 10-Q.

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;

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- 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 Erin Jaskot, Staff Attorney, at (202) 551-3442, or Craig Slivka, Special Counsel, at (202) 551-3729 with any questions.

Sincerely,

Pamela A. Long
Assistant Director