



DIVISION OF
CORPORATION FINANCE

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

April 14, 2011

James D. Frias, Chief Financial Officer
Nucor Corporation
1915 Rexford Road
Charlotte, North Carolina 28211

RE: Nucor Corporation
Form 10-K for the Fiscal Year Ended December 31, 2010
Filed February 28, 2011
File No 1-04119

Dear Mr Frias:

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 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, please tell us why in your response. After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2010

Business, page 1

1. We note that you have several risk factors involving compliance with federal, state and local environmental laws and that you have made provisions for the estimated costs related to compliance. In future filings, please elaborate on the effects of these laws on your business in the Business section, and disclose any material estimated capital expenditures for environmental control facilities for the remainder of your then-current fiscal year and succeeding fiscal year, and any other periods that you believe are material. Please see Item 101(c)(xi) of Regulation S-K.

Sources and Availability of Raw Materials, page 3

2. Please disclose the approximate amount of ferrous scrap and various scrap substitutes needed to produce a ton of steel. While the amount of raw materials needed will fluctuate based on the specifications of the final products and other factors, an estimate of this amount would provide useful information to an

investor regarding your use of ferrous scrap, pig iron, DRI and HBI. Disclose the approximate amount of natural gas consumed per ton at normal operating levels.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 22

3. Please expand your discussion of ferrous scrap to provide a detailed and appropriately quantified analysis of scrap metal costs and surcharges that provides investors an understanding through the eyes of management of the impact of changes in the price of scrap on operations and plans to manage them. Included in this analysis, please address the following:
 - Disclose the expected impact of recent changes in the price of scrap metal on profitability over the next few quarters as the scrap metal is processed and related revenue is earned.
 - Provide an expanded discussion of your contract mechanisms for recovering increases in scrap metal costs, including scrap rebate programs, surcharges, and index-based adjustments. Discuss the lag between an increase in scrap metal and your ability to recover a portion of the costs through these mechanisms and, as practicable, quantify the impact of these lags and other limitations on your ability to recover increased costs. Discuss the impact of these contract provisions during a period of declining scrap metal costs.
 - Discuss other limitations on your ability to recover increases in raw materials prices, e.g. limitations imposed by the market for your finished goods.
 - Disclose the percentage of sales to spot market customers vs. contract sales, how this percentage has changed during recent periods, the impact on your ability to respond to changes in raw materials prices, and the impact on your margins from recent changes in this mix. Discuss the factors determining this mix, how much control management has in influencing it, and any expected trends or decisions to manage it based on expected volatility in raw materials costs.

Please provide us with an example of intended future disclosure.

4. Your discussion did not address the substantial decline in performance in the fourth quarter in gross margin, net earnings and the loss attributable to Nucor stockholders. For example, your discussion of gross margin describes the increase in gross margins overall without addressing the decrease in the fourth quarter. Your discussion of the steel mills segment discusses an increase in metal margin dollars, without addressing the decline of metal margins at your steel mills of \$27 per ton from third quarter levels. In future filings, please discuss significant changes in recent performance, the underlying reasons, and any trends, events or uncertainties that could affect future periods.
5. In addition to the matters noted above, please expand your discussion throughout to discuss the underlying reasons for changes in your operations in sufficient

detail for a reader to see the business through the eyes of management. For example:

- In evaluating your operating performance, you focus on both changes in, and the reasons for changes in, average sales price per ton during the period and total tons shipped to outside customers. In future filings, please ensure that you discuss the reasons for changes in these items.
- Discuss the underlying reasons for the 40% increase in sales of cold finished bar.
- Discuss the underlying reasons for the 5% decrease in average sales price per ton in your steel products segment and the 16% increase in average sales price per ton in your steel mills segment.
- Discuss product mix and the impact on operations. Describe recent modifications made to plants to produce higher margin products and quantify the impacts.
- Address earnings before income taxes and noncontrolling interests at the segment level. Given the recent losses in your steel products segment, include discussion of the underlying reasons for the losses and changes between periods.
- Equity in losses of unconsolidated affiliates of \$32.1 million was 12% of earnings before income taxes and noncontrolling interests in 2010. Please expand your discussion to discuss the contributing factors driving the equity losses of \$32.1 million for the 2010 fiscal year and the contribution of your significant equity investments, including NuMit LLC.

These are examples and are not intended to be a comprehensive list. Please revise your disclosures throughout MD&A in future filings to provide a greater level of detail and analysis.

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

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- 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 Tracey McKoy, Staff Accountant, at (202) 551-3772 or, in her absence, the undersigned Accounting Branch Chief at (202) 551-3355 if you have questions regarding comments on the financial statements and related matters. Please contact Errol Sanderson at (202) 551-3746 with any legal related questions.

Sincerely,

Terence O'Brien
Accounting Branch Chief