



DIVISION OF
CORPORATION FINANCE

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

May 20, 2010

Room 4631

James D. Frias
Chief Financial Officer, Treasurer and Executive Vice President
Nucor Corporation
1915 Rexford Road
Charlotte, NC 28211

**Re: Nucor Corporation
Form 10-K for the year ended December 31, 2009
Definitive Proxy filed March 25, 2010
File No. 001-04119**

Dear Mr. Frias:

We have reviewed the above referenced filing and have the following comments. Please note that we have limited our review to the matters addressed in the comments below. We may ask you to provide us with supplemental information so we may better understand your disclosure. Please be as detailed as necessary in your explanation. After reviewing this information, we may 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 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 year ended December 31, 2009

Exhibit 13 – 2009 Annual Report

Business, page 1

1. In future filings, please provide disclosure on your competitive conditions including, where material, the identity of the markets in which you compete, an estimate of the number of your competitors and the principal methods of competition pursuant to Item 101(c)(1)(x) of Regulation S-K.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 20

2. You state on page 22 that the decrease in gross margins was offset by a \$466.9 million LIFO credit. You also briefly discuss that the 2009 results included the negative impact of \$420.0 million from the accelerated consumption of high-cost pig iron inventories and how certain inventories were purchased prior to the collapse of the economy. Please tell us and revise MD&A, in future filings, to disclose the facts and circumstances surrounding the \$466.9 million LIFO credit in light of historical LIFO charges. Discuss changes in the LIFO reserve during the reporting periods and the relationship with changes in the market for your raw materials. Ensure that your revised disclosure of the LIFO credit explains in detail how pricing of certain inventories and its consumption impacted the LIFO charges in 2007 and 2008 and credit in 2009.

Liquidity and Capital Resources, page 26

3. We note disclosure of your \$1.3 billion revolving credit facility. In future Form 10-K filings, please include this credit facility in your exhibit index pursuant to Item 601(b)(10)(i) of Regulation S-K or explain to us why you are not required to do so.

Definitive Proxy Statement filed March 25, 2010

Long-Term Incentives, page 23

4. In future filings, please explain how actual performance resulted in the LTIP payout for each named executive officer. We note disclosure of the 2009 ROAIC of 33.95% and the award of 148.75% of the number of shares in the target LTIP award. Please explain the actual ranking achieved, and how the actual ranking relative to the Steel Comparator Group and the General Industry Group resulted in the LTIP payout for each named executive officer. Consider providing an illustrative example of how the actual payout is calculated.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please submit all correspondence and supplemental materials on EDGAR as required by Rule 101 of Regulation S-T. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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.

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 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
- 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 our review of your filing or in response to our comments on your filing.

You may direct questions on accounting comments to Melissa N. Rocha, Staff Accountant, at (202) 551-3854 or me at (202) 551-3355. You may direct questions on other comments and disclosure issues to Sherry Haywood, Attorney, at (202) 551-3345 or Jay Ingram, Legal Branch Chief, at (202) 551-3397.

Sincerely,

Terence O'Brien
Accounting Branch Chief