



DIVISION OF
CORPORATION FINANCE

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

February 3, 2009

Mr. Michael D. Bennett
Vice President, Secretary and Treasurer, MFRI, Inc.
7720 N. Leigh Ave
Niles, IL 60714

Re: MFRI, Inc.
Form 10-K for the year ended January 31, 2008
Definitive Proxy Statement on Schedule 14A, filed May 29, 2008
Form 10-Q for the quarter ended October 31, 2008
File No. 1-32530

Dear Mr. Bennett:

We have reviewed your response to our letter dated December 23, 2008 and have the following comments. We ask that you respond by February 18, 2009.

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 on 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 January 31, 2008

Critical Accounting Estimates and Policies – Goodwill..., page 25

1. We note you have identified Goodwill as a critical accounting policy. In order to provide readers with a better insight into management's judgments in accounting for goodwill, please disclose the following:
 - A qualitative and quantitative description of the material assumptions used and a sensitivity analysis of those assumptions based upon reasonable likely changes; and
 - How the assumptions and methodologies used for valuing goodwill in the current year have changed since the prior year highlighting the impact of any changes.

Definitive Proxy Statement on Schedule 14A

Compensation Discussion and Analysis, page 9

2. We note your responses to comments 9 and 10 in our letter dated December 23, 2008. Please confirm to us that by your responses you mean that you intend to disclose in future filings the particular information requested by comments 9 and 10.

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. Please provide us with a supplemental response letter that keys your responses to our comments and provides any requested supplemental information. Detailed letters greatly facilitate our review. Please file your supplemental response on EDGAR as a correspondence file. Please understand that we may have additional comments after reviewing your responses to our comments.

If you have any questions regarding these comments, please direct them to Mindy Hooker, Staff Accountant, at (202) 551-3732, Hagen Ganem, Attorney, at (202) 551-3330, Jennifer Hardy, Legal Branch Chief, at (202) 551-3767 or to the undersigned at (202) 551-3768.

Sincerely,

John Cash
Branch Chief