



DIVISION OF
CORPORATION FINANCE

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

December 29, 2011

Via facsimile

Mr. Michael D. Bennett
VP, Chief Financial Officer, Secretary and Treasurer
MFRI, Inc.
7720 N. Leigh Avenue
Niles, IL 60714

Re: MFRI, Inc.
Form 10-K for the fiscal year ended January 31, 2011
Filed April 14, 2011
Definitive Proxy Statement on Schedule 14A
Filed May 27, 2011
Forms 10-Q for the periods ended April 30, 2011, July 31, 2011 and October 31, 2011
Filed June 13, 2011, September 14, 2011 and December 12, 2011
File No. 1-32530

Dear Mr. Bennett:

We have reviewed your filings 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 period ended January 31, 2011

Condensed Consolidated Statement of Cash Flows, page 30

1. In future periodic filings please remove the subtotal included under Financing Activities as this presentation is not contemplated under ASC 230. Please also refer to ASC Topic 230-10-45-7 for information pertaining to gross and net cash flows.

Definitive Proxy Statement on Schedule 14A

Compensation Plans for NEOs as of January 31, 2011

2. We note your disclosures in this section regarding the incentive compensation of Mr. Unger, Mr. Elgendy, and Mr. Maffei. You included similar disclosure in your definitive proxy statement filed May 29, 2008. In our letter dated December 23, 2008 we requested that you disclose in future filings the percentages of (i) consolidated income before income taxes and before corporate profit-based incentive compensation and (ii) business unit income from operations before allocated corporate expenses that you must meet in order for executives to earn their respective bonuses and disclose what the actual amounts were for the prior year. Please tell us this information for the last fiscal year, with a view toward future disclosure. See Item 402(o)(5) of Regulation S-K.

Related Parties

3. In future filings, please fully comply with Item 404(a)(1) of Regulation S-K by providing the name of the company and the two principal stockholders who own the company to which you provided services.

Forms 10-Q for the quarters ended April 30, 2011, July 31, 2011 and October 31, 2011

Exhibits 31.1 and 31.2

4. In future filings, please provide the certifications exactly as provided in Item 601(b)(31) of Regulation S-K, including the entire introductory paragraph 4 regarding disclosure controls and procedures and internal control over financial reporting and the parenthetical text in paragraph 4(d).

Form 10-Q for the quarter ended October 31, 2011

Financial Statements

Note 3 – Income Taxes, page 5

5. We note your disclosure which indicates you have repatriated foreign earnings during your most recent fiscal quarter. In future filings, please expand your liquidity disclosures to discuss the locations of your cash balances and also discuss the potential range of tax consequences, should you continue to repatriate additional cash. If further repatriations are anticipated, please also discuss the extent and timing of such repatriations.

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

Mr. Michael D. Bennett
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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
- 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 Mindy Hooker at (202) 551-3732 or Kevin Stertzell at (202) 551-3723 if you have questions regarding comments on the financial statements and related matters. Please contact Chambre Malone at (202) 551-3262, Craig Slivka at (202) 551-3729 or me at (202) 551-3768 with any other questions.

Sincerely,

/s/ John Cash

John Cash
Branch Chief