



DIVISION OF  
CORPORATION FINANCE

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

December 23, 2008

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 filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may or may not 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 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**

Item 1. Business, page 1

Piping Systems Business, page 3

Patents, Trademarks, and Approvals, page 3

1. We note that you own several patents covering the features of your piping and electronic detection systems. In future filings, please disclose the duration and effect of your patents or explain supplementally why you believe this information is immaterial to your piping systems business. See Item 101(c)(1)(iv) of Regulation S-K.

Raw Materials and Manufacturing, page 4

2. We note from the first paragraph in this section that you currently have adequate supplies or available sources for raw materials but that “there are risks and uncertainties with respect to the supply of certain raw materials,” which could impact your ability to obtain those needed materials. In future filings, please expand your raw materials discussion to identify the risks and uncertainties that pose an issue for you and identify those materials that are likely to be affected.

Item 13. Certain Relationships and Related Transactions..., page 29

3. You incorporate the information required by Item 13 of Form 10-K by reference to your proxy statement for the 2008 annual stockholders meeting. However, there is no discussion of related party transactions in your proxy statement. In future filings, please include the discussion required by Item 404 of Regulation S-K. In this regard, we note from the third paragraph on page 24 that you were engaged in at least one related party transaction with “two principal stockholders, who are also members of management, for approximately \$4,438,000.” Please also file as exhibits the agreements related to these transactions as required by Item 601(b)(10)(ii)(A) of Regulation S-K.

Item 15. Exhibits and Financial Statement Schedules, page 29

General

4. In future filings, please file as a material contract the employment agreement you have with Mr. Elgendy. See Item 601(b)(10)(iii)(A) of Regulation S-K.

Notes to the Consolidated Financial Statements

Note 9 – Employee Retirement Plans, page 47

Pension Plan, page 47

5. We note at January 31, 2008 that approximately 99% of your pension plan assets were held in mutual funds. In future filings please expand your discussion to include the impact market conditions have had on plan assumptions and the net periodic benefit cost, as well as the expected impact on future operations from a decrease in plan assets, change in expected return and amortization of actuarial loss. Please also address potential funding requirements relative to your accumulated benefit obligation and the implications to current and future liquidity resulting from potential incremental cash payments required to maintain funding requirements.

Note 10 – Business Segment and Geographic Information, page 49

Geographical Information, page 51

6. In future filings please disclose net sales attributable to individual countries within Europe and Asia, if material. We note your increasing foreign activity and believe this disclosure refinement will assist your investors. See paragraph 38 a. of SFAS 131 for guidance.

Exhibits 31.1 and 31.2

7. We note that your certifications omit the introductory language in paragraph 4 referring to internal control over financial reporting as required by Item 601(b)(31) of Regulation S-K. In this regard, please amend your latest Form 10-K and your Forms 10-Q for the quarters ended April 30, July 31, and October 31, 2008 to include the aforementioned language in your certifications. Each of your amendments may consist of a cover page, explanatory note, signature page and paragraphs 1, 2, 4, and 5 of the certifications.
8. We note that paragraph 4(d) of your certifications omits the phrase “(the registrant's fourth fiscal quarter in the case of an annual report).” In future filings, including in the amendments requested above, please insert this omitted phrase as required by Item 601(b)(31) of Regulation S-K.

**Definitive Proxy Statement on Schedule 14A**

Compensation Discussion and Analysis, page 9

Incentive Compensation, page 10

9. In future filings, please disclose 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 a bonus and disclose what the actual amounts were for the prior year.

Executive Compensation, page 12

Compensation Plans for NEOs..., page 13

10. With respect to your discussion of Mr. Elgendy's employment arrangement on page 14, you state that his incentive compensation is calculated as a defined percentage of the "Perma-Pipe Incentive Earnings." In future filings, please define this term, provide any further disclosure necessary for an investor to understand how Mr. Elgendy's incentive compensation is determined, and quantify the most recent amount.

**Form 10-Q for the period ended October 31, 2008**

Liquidity and Capital Resources, page 13

11. We note your non-compliance with the earnings covenant at January 31, 2008 and your reference to the subsequent waiver and amendment of that covenants. Please disclose here or elsewhere in your filing the specific terms of any material debt covenants in your debt agreements. For any material debt covenants, please disclose the required ratios as well as the actual ratios as of each reporting date. This will allow readers to understand how much cushion there is between the required ratios and the actual ratios. Please show the specific computations used to arrive at the actual ratios with corresponding reconciliations to US GAAP amounts, if necessary. See Sections I.D and IV.C of the SEC Interpretive Release No. 33-8350 and Question 10 of our FAQ Regarding the Use of Non-GAAP Financial Measures dated June 13, 2003.

Critical Accounting Estimates and Policies

Goodwill and Other Intangibles Assets with Indefinite Lives, page 14

12. It appears that your current market capitalization is significantly below the book value of your equity. Please advise us whether you have performed a recent impairment test. If not, please explain how you analyzed the difference to conclude that an impairment test is not necessary. Please explain any qualitative and quantitative factors you considered (e.g. reconciliation). If you have performed a recent impairment test, please provide us with a summary of your results in Step 1 and Step 2, if applicable. We may have further comment.

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.

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MFRI, Inc.  
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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 and 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 their filings;
- 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.

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