

April 25, 2011

Jay Ingram
Legal Branch Chief
Securities and Exchange Commission
Division of Corporation Finance
100 F Street, NE
Washington, D.C. 20549-7010

**Re: Mitcham Industries, Inc.
Registration Statement on Form S-3
Filed March 18, 2011
File No. 333-172935**

Dear Mr. Ingram:

Mitcham Industries, Inc. (the “Company”) is filing today, via EDGAR, Amendment No. 1 (“Amendment No. 1”) to the above referenced registration statement on Form S-3 (the “Registration Statement”).

Set forth below are the Company’s responses to the comments contained in the letter from the staff of the Division of Corporation Finance (the “Staff”) of the Securities and Exchange Commission (the “Commission”) dated April 13, 2011.

For your convenience, the exact text of the comments provided by the Staff has been included in bold face type preceding each response in the order presented in the comment letter.

General

- 1. Please provide a detailed explanation as to the availability of General Instruction I.B.1 to the subject transaction. Provide a specific calculation of how you determined that you the aggregate market value your voting and non-voting common equity held by non-affiliates equals or exceeds \$75 million.**

Response: The Company respectfully acknowledges the Staff’s comment. General Instruction I.B.1 of Form S-3 states that “[t]he aggregate market value of the registrant’s outstanding voting and non-voting common equity shall be computed by use of the price at which the common equity was last sold, or the average of the bid and asked prices of such common equity, in the principal market for such common equity as of a date within 60 days prior to the date of filing.” On February 23, 2011, a date that is within 60 days prior to March 18, 2011, the date of the filing of the Registration Statement, the closing price of the Company’s common stock, which is the only common equity of the Company, on the The Nasdaq Global Market was \$11.29. As of February 23, 2011, non-affiliates of Company held in the aggregate 9,171,087 shares of Company common stock. Therefore, the aggregate market value of the common equity held by non-affiliates of Company as of February 23, 2011 was \$103,541,572. Based on the foregoing, the Company respectfully submits that it complied with the market value requirement of General Instruction I.B.1.

2. **Please note that at the time of effectiveness, the registration statement must be in compliance with the financial statement requirements for subsidiary guarantors as set forth in Rule 3-10 of Regulation S-X. Please advise us as to how you plan to comply with these requirements. See SEC Release No. 33-7878 (August 15, 2000).**

Response: The Company respectfully acknowledges the Staff's comment. Amendment No. 1 has been revised to remove the subsidiary guarantors as co-registrants and remove the guarantees as a class of securities being registered pursuant to the Registration Statement. Accordingly, subsidiary guarantor financial statements are not required.

Calculation of Registration Fee Table

3. **We note disclosure in footnote 1 that securities registered may be sold separately or as units with the other securities registered under the Form S-3. Please revise to identify the units as a separate security, pay the appropriate registration fee, and revise the registration statement, including the Calculation of Registration Fee table, the prospectus cover page and description of securities section to include the units. Please arrange for counsel to opine on the legality of the units.**

Response: The Company respectfully acknowledges the Staff's comment. Amendment No. 1 has been revised to delete any references to units as a class of securities registered pursuant to the Registration Statement.

Ratio of Earnings to Fixed Charges, page 6

4. **The ratio of earnings to fixed charges information required by Item 503(d) of Regulation S-K should be included in your registration statement prior to effectiveness. Please revise.**

Response: The Company respectfully acknowledges the Staff's comment and confirms that the ratio of earnings to fixed charges information required by Item 503(d) of Regulation S-K has been included in Amendment No. 1.

Exhibit 5.1

5. **We note the date limitation on page 5 of counsel's legal opinion. Please have counsel provide a new legal opinion dated at or in close proximity to the date of effectiveness. Alternatively, counsel may delete the date qualification.**

Response: The Company respectfully acknowledges the Staff's comment and confirms that a revised opinion of counsel has been filed with Amendment No. 1.

The Company acknowledges that (i) it is responsible for the adequacy and accuracy of the disclosure in the filings; (ii) should the Commission or the Staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing; (iii) the action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full

responsibility for the adequacy and accuracy of the disclosure in the filing; and (iv) it may not assert Staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Should the Staff have any questions or comments, please contact the undersigned at (936) 291-2277 or Gillian Hobson of Vinson & Elkins at 713-758-3747.

Very truly yours,

MITCHAM INDUSTRIES, INC.

By: /s/ Billy F. Mitcham, Jr.

Billy F. Mitcham, Jr.

President and Chief Executive Officer

cc: Gillian A. Hobson (*Via facsimile 713.615.5794*)
Vinson & Elkins L.L.P.
1001 Fannin Street
2500 First City Tower
Houston, Texas 77002