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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

December 1, 2015

Via E-mail
Gerald R. Mattys
Chief Executive Officer
Tactile Systems Technology, Inc.
1331 Tyler Street NE, Suite 200
Minneapolis, MN 55413

Re: Tactile Systems Technology, Inc.
Amendment No. 1 to
Draft Registration Statement on Form S-1
Submitted November 12, 2015
CIK No. 0001027838

Dear Mr. Mattys:

We have reviewed your amended draft registration statement 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 by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Graphics

1. We note your response to prior comment 1. However, it appears inappropriate to use this particular graphic if it does not represent the normal use and proper application of the product. Please revise. Also, please tell us why you believe it is appropriate to include the penultimate bullet points to each graphic if the information in the bullet points are not clinically proven as your response suggests. Alternatively, please limit your statements in the bullet points to your beliefs.

Market Opportunity, page 3

2. If this risk is not one of the most significant risks to you as your response indicates, then please balance your disclosure in this section to reflect your response that estimates are inherently uncertain and remove from your prospectus summary the bullet point added at the top of page 7.

Our Competitive Strengths, page 4

3. We note your response to prior comment 6. In your third bullet point, please highlight the material limitations of the clinical evidence you cite.

Use of Proceeds, page 62

4. It is unclear whether you intend to finance your efforts to overturn the Local Coverage Determination, effective December 1, 2015, with any of the offering proceeds. Please revise to clarify how those efforts will be funded. In addition, since this expense appears to be a known trend, consider whether you should disclose additional information in your Management's Discussion and Analysis section.

Results of Operations, page 75

5. We note your response to prior comment 15, and we also note your risk disclosure on page 21 regarding payers exerting "further downward pressure on the prices of [your] products." Please tell us the extent to which changes in sales prices of your systems affected your results of operations for the periods presented.

Stock-Based Compensation, page 85

6. Further to your response to comment 18, please tell us the underlying reasons for the substantial increase in the fair value of your common stock between valuation dates in 2014 and 2015. In light of the changes to 2015, tell us why you did not also revise the fair value for 2014.

Business page 90

7. We note your response to prior comment 19. Please tell us who conducted the claims data analysis that you commissioned.

Impact on Clinical Outcomes and Healthcare Costs with Use of our Flexitouch System, page 99

8. You provide percentage improvement for several measures in connection with the retrospective study, but it is unclear what baseline was used from which to measure these changes. Please revise or advise.

Comparison of our Flexitouch System with Pneumatic Compression Devices, page 102

9. We note your response to prior comment 22. However, please identify the number of participants in the study as a material limitation to the study. Also, disclose the material differences of the two devices in your registration statement, including the fact that you are comparing a basic pneumatic compression device to an advanced pneumatic compression device which the American Medical Association codes separately. Include disclosure that the study does not reflect a comparison of your product to a similarly coded device.

Third-Party Reimbursement, page 117

10. Please disclose the time frame for the required trial of conservative therapy under the new Local Coverage Determination for the basic pneumatic compression device treating lymphedema and treating venous stasis ulcers.

Employment Agreements, page 129

11. We note your response to prior comment 47. Please revise the language in this section to state that you will enter into new agreements prior to the effectiveness of you registration statement. Alternatively, please file the agreements that will be in effect at the time of effectiveness.

Consolidated Financial Statements

Consolidated Statements of Operations, page F-4

12. Refer to prior comment 31. The revisions made on page 75 of MD&A did not fully address our prior comment. Please tell us why you classify the costs as reimbursements and whether or not these activities involve costs incurred by your independent contractors. Tell us how you account for these costs and if reimbursement expenses are material, include an accounting policy to explain the nature of the expense and your accounting.

Note 1. Summary of Significant Accounting Policies

Accounts Receivable, page F-9

13. You disclose that the total amount of original claims submitted to Medicare was $1,457,000 and you received only $851,000 in payment for those claims, a return of 58%. On page F-9 you disclose that after final adjudication of all Medicare claims, approximately 90% are approved. In response to comment 39, you told us that the settlement has had no impact on your estimates. Please tell us why and include sufficient

detail for the basis for your 90% rate and how you considered your settlement in determining that rate.

14. Refer to your response to comment 32 and your disclosure that the Medicare settlement related to claims you submitted to an ALJ in 2013. Please tell us in more detail how you determine the current and long-term portions of your Medicare accounts receivable and how accurate those classifications have been each period. For example, we note that you only reflected $921,000 as noncurrent as of December 31, 2013 whereas your submitted claims in the settlement were $1,457,000. Include how the submission of claims to an ALJ impacts your classification.

15. Further to your response to comment 33, tell us how you accounted for the gross receivables of $1,457,000 in each period presented, including any reserves and write-offs. Include how the settlement impacted your consideration of the collectability other receivables you have with Medicare as of September 30, 2015.

Stock-Based Compensation, page F-14

16. Please refer to your response to comment 36 and tell us in more detail why you derived your expected volatility from the historical volatility of only one other public company and how you considered ASC 718 and ASC 718-10-55-35 through 55-41 in determining that only one public company was sufficient.

Note 5. Asset Purchase Agreement, page F-17

17. Refer to your response to comment 40. Tell us in detail why you believe the terms of the minimum guaranteed royalty payments should be treated as contingent consideration and how you considered the definition of contingent consideration in the FASB Master Glossary. Explain whether you believe that the royalty payments are additional consideration for your acquisition of control of the company. Include a discussion and analysis of the nature of the asset acquired and recorded as a result of those royalty payments. Also discuss your analysis of the classification and accounting for the other royalty payments under the agreement. Cite the specific guidance relied upon, including paragraph numbers, and explain how you applied the guidance to your facts and circumstances.

You may contact David Burton at (202) 551-3626 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Heather Percival at (202) 551-3498 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Jonathan R. Zimmerman
Faegre Baker Daniels LLP