



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

Mail Stop 3030

March 1, 2010

Via Facsimile and U.S. Mail

Ms. Christine Hergenrother  
Chief Financial Officer  
Tegal Corporation  
2201 South McDowell Boulevard  
Petaluma, California 94954

**Re: Tegal Corporation  
Form 10-K for the Fiscal Year Ended March 31, 2009  
Filed June 26, 2009  
File No. 000-26824**

Dear Mr. Christine:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and will make no further review of your documents. Where indicated, we think you should revise your documents in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comments are 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 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 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 Fiscal Year Ended March 31, 2009

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 9

-Liquidity and Capital Resources, page 11

1. We note your disclosure here that "in 2009, [you] financed [y]our operations through net cash provided by operations." However, in light of the indication on page 16 that you had negative operating cash flows, it appears that your operations were instead financed through the use of existing cash balances. Please revise future filings to provide more clear and concise discussion of the sources and uses of cash during the period. In this regard, please revise the discussion in the sixth paragraph on this page to specifically discuss the declining cash balance.

Item 8. Financial Statements and Supplementary Data, page 11

Note 1. Description of Business and Summary of Significant Accounting Policies, page 17

-Description of Business, page 17

2. We note your disclosure here regarding the acquisition of assets from Alcatel Micro Machining Systems in September 2008. However, we do not see any additional disclosure in the filing that discusses the purchase price of the assets (including how you determined the value of the stock issued in connection with the transaction). Further, we do not see where you have provided a discussion of the nature of the assets acquired and how the assets have been recorded in your financial statements. To the extent that you have material acquisitions in future filings, please revise to provide disclosures relevant to an investors understanding of the transaction(s) and their impact on your financial statements.

-Identified Intangible Assets, page 18

3. We note you recorded \$492,000 of impairment charges related to your intangible assets during fiscal 2009. Please revise your future filings to address the following:
  - Provide a description of the intangible assets that you determined were impaired.
  - Explain in greater detail how you test intangible assets for impairment, including how you determine the fair value of the assets.
  - Within your critical accounting policy section in MD&A, please clearly describe the key assumptions and methodologies used in determining fair value. Discuss why the estimates used in your impairment evaluation bear the risk of change and how

changes in the underlying assumptions could impact future results including, for example, possible additional impairment charges in the future.

Refer to the guidance in 350-30-50-3 of the FASB Accounting Standard Codification.

-Revenue Recognition, page 18

4. We note your disclosure on page 5 that “international sales...consist of export sales from the United States either directly to the end user or to one of [y]our foreign subsidiaries.” Based on this disclosure, it appears that you recognize revenue on sales to foreign subsidiaries. If so, please tell us and revise your disclosures here to explain why you believe it is appropriate to recognize revenues at that point. Alternatively, please clarify your disclosures on page 5.
5. We note your disclosures here that in certain instances you defer recognition of revenue until final customer acceptance. You further state that in such instances you relieve inventory and record accounts receivable and deferred revenue for the entire contract amount. Please tell us and revise future filings to clearly disclose your accounting treatment for the related costs that are relieved from inventory.

-Stock-Based Compensation, page 18

6. We note here and on page 22 that you utilized the Black Scholes Option pricing model to determine the fair value of your options and warrants issued. Please revise future filings to explain how you determined the assumptions utilized in this model including the volatility, risk free interest rate, expected life, etc. Refer to the guidance in 718-10-50-2 of the FASB Accounting Standard Codification.

Item 9A. Control and Procedures, page 24

7. We note the disclosure that your assessment of internal control over financial reporting was conducted using the criteria in *Internal Control over Financial Reporting - Guidance for Smaller Public Companies* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Please tell us specifically what control framework you applied in performing your assessment of internal control over financial reporting. In that regard, please tell us how the framework you used is an acceptable framework as discussed in SEC Release No. 33-8810: *Commission Guidance Regarding Management's Report on Internal Control over Financial Reporting under Section 13(a) or 15(d) of the Securities Exchange Act of 1934*. Alternatively, to the extent that you utilized the referenced guidance in connection with your evaluation of your internal controls over financial reporting based on the framework established by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control – Integrated Framework*, please confirm that fact to us and revise your disclosure in future filings to clearly

indicate that your evaluation was based on that framework rather than the supplemental guidance that you reference in the current disclosure.

Exhibits 31.1 & 31.2

8. We note that you have omitted the language “internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f))” from paragraph 4 of your certification. The required certifications must be in the exact form prescribed. Please amend your filing to include revised certifications that conform to the exact wording required by Item 601(b)(31) of Regulation S-K. Please note this comment also applies to your Forms 10-Q for the quarters ended June 30, 2009 and September 30, 2009.

Form 10-Q for the Quarter Ended September 30, 2009

Exhibits 32

9. We note here and within your June 30, 2009 Form 10-Q that your certifications furnished pursuant to Rule 13a-14(b) of the Exchange Act refers to the Form 10-Q for the quarter ending *December 31, 2008* rather than the appropriate Forms 10-Q. Please amend each of your June 30 and September 30, 2009 Forms 10-Q to include the entire filing together with a currently signed and dated certification that references the appropriate quarterly report.

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

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 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 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.

Tegal Corporation  
Ms. Christine Hergenrother  
March 1, 2010  
Page 5

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.

You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or me at (202) 551-3643 if you have questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Kevin L. Vaughn  
Accounting Branch Chief