



DIVISION OF
CORPORATION FINANCE

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

August 8, 2011

Via Email

Mr. Alnoor Shivji
Chief Executive Officer
WaferGen Bio-systems, Inc.
7400 Paseo Padre Parkway
Fremont, CA 94555

**Re: WaferGen Bio-systems, Inc.
Form 10-K for the Year Ended December 31, 2010
Filed March 31, 2011
File No. 000-53252**

Dear Mr. Shivji:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. 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 Year Ended December 31, 2010

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 24

-Results of Operations, page 25

1. We note your discussion of your gross margin after reversing the impact of the provision for obsolete inventory for the year ended December 31, 2009. Please explain to us how you have complied with the guidance in Item 10(e) of Regulation S-K in connection with

your presentation of the non-GAAP gross margin percentage for 2009. Revise future filings as appropriate to comply with that guidance.

-Critical Accounting Policies and Estimates, page 31

2. We note your disclosures here regarding your inventory valuation. Please revise your future filings to discuss in more detail how you develop certain of your assumptions such as “projected demand” for purposes of your inventory valuation analysis and why you have chosen one year’s projected demand to determine obsolescence. Discuss how you arrived at your estimates for projected demands, how accurate your estimates of projected demand have been in the past and how much the estimates of projected demand have changed in the past. Provide us with a sample of your proposed disclosure.
3. Further to the above, we note from pages 25-26 that you are no longer selling your SmartSlide™ products during fiscal 2010 and that in 2009 you established a provision for obsolete SmartSlide™ products inventory. We further note that you recognized \$11,524 of income in fiscal 2010 within your provision for obsolete inventory. Please address the following comments:
 - Considering that you are no longer selling the SmartSlide™ products, please explain how you determined the amount of the provision for obsolete inventory to establish for this inventory in fiscal 2009.
 - Please explain to us why you recognized \$11,524 income during fiscal 2010 within your provision for obsolete inventory.

Item 8. Financial Statements and Supplementary Data, page 33

Note 2. Summary of Significant Accounting Policies, page 49

-Stock-Based Compensation, page 51

4. We note that you determine the expected volatility for your stock-based compensation issued to your employees based upon the “weighted-average of [your] historic volatility of four comparable companies over the retrospective period corresponding to the expected life of [your] own options on the grant date.” We further note that you provide for extra weighting to those companies most similar in terms of size and business activity. Please describe to us in greater detail the nature of the comparable publicly traded companies you selected and the basis for your conclusion to select those companies. Discuss how you considered factors such as industry, stage of life cycle, size and financial leverage when selecting the comparable companies. Refer to paragraphs 718-10-55-36 and 37 of the FASB Accounting Standards Codification and Question 6 in SAB Topic 14.D.1.

-Warrant Derivative Valuation, page 51

5. We note that you determine the fair value your warrants using a Monte Carlo Simulation model for each reporting period presented and that you utilize an assumption entitled “private placement discount to your stock price” within this model. Please explain to us in more detail the nature of this discount and how you have determined the amount of the discount. Cite the accounting literature relied upon and how you applied it to your situation.
6. We also note your disclosures that you use 50% of the weighted average of the historic volatility of four comparable companies and 50% of your own historic volatility when your stock has been traded longer than the expected remaining term of the warrants. Please explain to us in more detail how you determined the weighting of your expected volatility between 50% of your own historic volatility and 50% of your four comparable companies.
7. We also note that your expected volatility has increased to 92.67% for fiscal 2010 as compared to 49.78% in fiscal 2009. Please explain to us why your expected volatility has increased between fiscal 2010 as compared to fiscal 2009.

Note 6. Redeemable Convertible Preference Shares in Subsidiary, page 55

8. We note your disclosures here and within your March 31, 2011 Form 10-Q related to your Series A, B, and C Redeemable Convertible Preference Shares (RCPS) that were issued by your Malaysian subsidiary.. Please explain to us in detail how you accounted for the embedded put options upon issuance of the Series A, B, and C RCPS and once the embedded put options became exercisable or were exercised. Cite the accounting literature relied upon and how you applied that literature to this situation.
9. Further to the above, we note that you valued the embedded put options during fiscal 2010 and the three months ended March 31, 2011 utilizing the Black-Scholes valuation model during each reporting period presented. Please tell us how you determined the significant assumptions utilized within the model.

Note 11. Income Taxes, page 64

10. Please revise your future filings to include the disclosures required by paragraphs 740-10-15-15 and 15-15(a) of the FASB Accounting Standards Codification related to your unrecognized tax benefits for each reporting period presented.

Note 12. Business Segment Information, page 66

11. We note your disclosure of revenues by geographic area. Specifically, we see that you have grouped your revenue into North America, Asia, and Europe. In accordance with

280-10-50-41(a) of the FASB Accounting Standards Codification, please revise your future filings to separately present revenues from external customers attributed to your country of domicile.

12. Further to the above, paragraph 280-10-50-41(a) of the FASB Accounting Standards Codification requires separate disclosure of material revenues attributed to an individual foreign country. Please explain to us how your current presentation complies with that guidance.
13. Please revise future filings to disclose the basis of attributing revenues from external customers to individual countries pursuant to paragraph 280-10-50-41(a) of the FASB Accounting Standards Codification.

Note 13. Contingencies, page 66

14. For any unrecognized contingencies whereby an accrual has not been made because the conditions in paragraph 450-20-25-2 of the FASB Accounting Standards Codification have not been met or an exposure to loss exists in excess of the amount accrued, please revise future filings to disclose an estimate of the possible loss or range of loss. Refer to paragraph 450-20-50-4 of the FASB Accounting Standards Codification.

Item 9A. Controls and Procedures, page 68

15. We note that disclose that management's assessment of internal control over financial reporting is based on "criteria in Internal Control over Financial Reporting—Guidance for Smaller Public Companies Issued by the Committee of Sponsoring Organizations of the Treadway Commission." Please note that this is not an acceptable framework as set forth in SEC Release 33-8810. Specifically, the guidance you reference is not an actual framework for evaluation, but instead provides guidance on how small companies can utilize the framework set forth in Committee of Sponsoring Organizations of the Treadway Commission's "Internal Control – Integrated Framework." Please clarify for us the actual framework that you utilized in your evaluation of internal control over financial reporting. Further, please revise future filings to specifically indicate the actual framework management utilized. In this regard, you may indicate, if true, that you carried out your evaluation based on criteria of the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control – Integrated Framework while utilizing the additional guidance contained in the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control over Financial Reporting - Guidance for Smaller Public Companies.
16. We note that you have identified a material weakness in your internal controls over financial reporting as of December 31, 2010 related to your reliance upon your external auditors to review and adjust your accounting and related financial disclosures regarding your redeemable preference shares in your subsidiary. Please clarify for us the reference

to “external auditors.” Clarify if you are referring to your Independent Registered Public Accounting Firm. If so, please address the following:

- Explain to us in more detail the nature of your reliance on your external auditors. Describe how your external auditors adjust your accounting and related financial disclosures.
 - Explain how you and your auditors have considered how the reliance on the external auditor in adjusting your accounting and related disclosures regarding your redeemable preference shares impacts your compliance with Rule 2-01(b) and Rule 2-01(c)(4) of Regulation S-X.
17. Further to the above, please discuss in greater detail your consideration of how the material weakness identified relating to the reliance on your external auditors reviewing and adjusting your accounting and disclosures for your redeemable preference shares could have broader implications on your internal control over financial reporting. In this regard, it appears that the material weakness disclosed could possibly be indicative of a more pervasive control deficiency regarding accounting for complex transactions. Please tell us more about the control deficiency that you have identified and the cause of the control deficiency. Please also provide us with additional information to help us understand whether the deficiency has a pervasive impact on internal control over financial reporting. Discuss how you have considered how the material weakness could impact other areas of the financial statements.

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 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.

Mr. Alnoor Shivji
WaferGen Bio-systems, Inc.
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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,

/s/ Kevin L. Vaughn

Kevin L. Vaughn
Accounting Branch Chief